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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

CXXVII.—No. 4253. AUGUST 8, 1924.

ON LOOKING AHEAD

EVERY age, we suppose, has its cut-and-dried opinions upon certain measures requiring legislation. If we happen to be dealing with a social problem, it matters not at all that we should have hazy ideas upon its relation to other social problems. Definite values of right and wrong are assumed, and constructive criticism is accepted as adverse criticism.

We created a housing shortage (we have ceased to speculate upon the wisdom of this action), and we must build. This is one side of the problem, but there is also another. Having created a housing shortage, costs of materials and wages are rising, as we would expect. The remedy of the popular press is the threat of Government control similar to that during the war—a threat which is almost ludicrous to those with memories of a previous control under which even a fool could prosper. The natural and simple remedy of the layman is to refuse to build until prices come down, but he is thereby increasing the housing shortage, and like Pooh-bah, he must compel himself to build—as an official. In this way he defeats his own object, and on and on the vicious circle keeps increasing. We can put the social and economic aspects in this way: we need houses; we refuse (as individuals) to build at the price, yet we do build. We can think of no compact little quotation or proverb, with an agreeable flavour of antiquity, to suit this situation; if we could, it is quite conceivable that it would be vested with all the authority of a proverb and be accepted as a pleasant way of clinching what threatens to be an endless discussion. The agreeable method to get over this absurd muddle would be to forget about it, in the hope that things would right themselves, whereas, on the contrary, our politicians are contemplating a running fight for many years ahead.

Unless some remedy is forthcoming, either through the traditional methods of building or by a modification of our grandiose schemes, the nation inevitably must pay a heavy price. On the simple issue of ways and means we believe that it is a mistaken policy to do more than legislate for a short period. There are scores of sentimental reasons for building good houses, but against these there are scores of practical reasons against the principle of Government housing schemes over a long period. Unfortunately, the nation will not yet accept what appears at first sight to be an anomaly: that one may be an enthusiastic housing reformer, yet not be able to agree about either the method or the extent of our housing policy. It is useless for us to argue that the real significance of the problem of better houses only emerges when the artificial matter of subsidies becomes no longer necessary.

Suppose, however, we assume that the financial side presented no difficulties, we have still to examine some aspects of the huge housing programme which we are planning for posterity. In assuming this, we are aware we lay ourselves open to the retort that there is a fairly general belief that under these conditions there would either be no housing problem, or, at least, it would have no interest for our politicians. Nevertheless, we would like for the moment to distinguish between a housing shortage and housing ideals; between how to supply houses and our ideas for posterity.

A few weeks ago we expressed the opinion that we doubted whether any party has explored the problem thoroughly. Regarding the design of houses, and estate development, we have the Tudor Walters report (in our opinion one of the most useful and suggestive publications yet produced), but we have yet to see what a committee of non-party professional and business men of experience would submit upon the general principles underlying the idea of better housing. We have any number of intellectuals who think they know what the workman either wants or ought to want, and he is the one man above all who ought to be represented on a commission. We would like to ask the following questions:—

(1) Has any one visualised the result or effect of building millions of houses at, say, 12 to the acre?

(2) We know that a twopenny tram fare, in certain districts, has put the new houses beyond the reach of the workman. But suppose we remodel our whole transport system, and reduce the cost of travel to next to nothing, and making all allowances for the acceleration in speed of travel, is it certain that the workman can afford the necessary time before and after his working hours?

(3) Is there convincing evidence to prove that many of the workers do not prefer to be housed in high-class tenement blocks in the city near to their work? We may not think they ought to be in the city, but we know that many wealthy people prefer to live in the city, and that everyone is not an amateur gardener despite the theories of the idealist. If there is a doubt on this matter, we may find in the end that we have still to build "workmen's dwellings."

(4) Is it realised that while we are ostensibly building houses for "workers," we are also building houses for the "lower middle classes"? Incidentally, this may explain the complaint that workmen's dwellings are a little too small for the occupiers.

(5) Assuming we have found the ideal housing scheme in all its details, have we taken any steps to see that the individual (regardless of his social position) can secure these benefits through legislation? In other words, have we not made a distinction between the individual who can afford to build a house, and one who cannot pay a rent?

(6) We are legislating for houses for many years ahead. Assuming that building costs and rentals reach an economic level: what then?

(7) Are we making any allowance in our housing programme for new inventions which might alter the whole conception of house construction? (This observation applies also to the financial aspect.)

(8) We look for a report to prove conclusively that better housing is either an ideal which requires subsidising permanently, or that it can be a practical and economic solution requiring no help from subsidies when building conditions have ceased to be artificial. The housing shortage and subsidies are intimately connected, we know, but the public does not understand the relationship between housing ideals and subsidies. If these matters were carefully examined, it is probable that housing legislation would be simplified, and the outlook altered.

In submitting these points, we ought to say that we consider the Government housing schemes to be a great advance both in the design of the small house and its amenities. They have met the needs of a number of people, and when we say that many of the architects who have designed these houses are now occupying them we have stated both the need for the privileges to be extended, and for an examination of the problem of "workmen's dwellings." We merely question whether we have found either the solution we are seeking, or the ultimate solution.

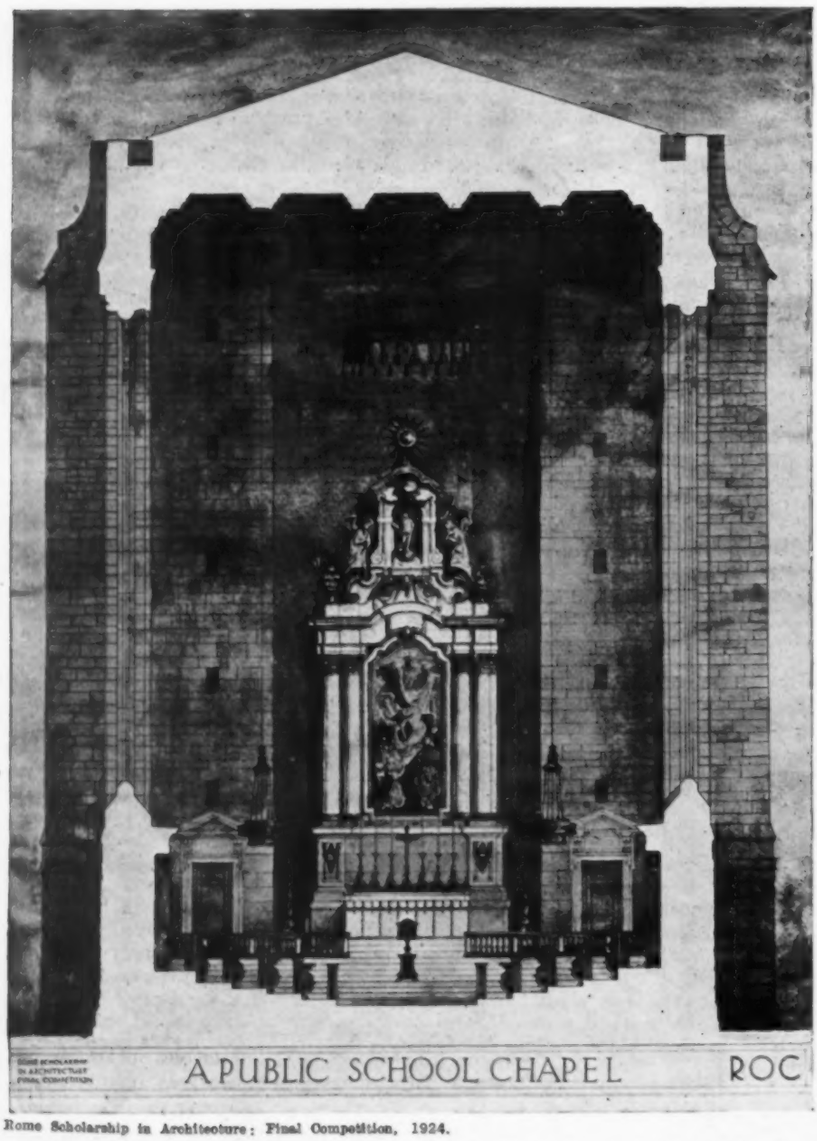
We cannot estimate what any particular Government will do; all that we can ask is that it should be guided by the report of a Commission so that it may secure the true ends which are essential to the ideals of housing. The actual number of houses which any Government may care to subsidise is another matter, and has no significance in our observations.

We do not think that future generations are likely to suffer from the housing schemes which our politicians are now so anxious to settle upon them; they are more likely to suffer from our conception of housing ideals—a totally different matter from the supplying of houses. It is hardly just to say that the housing shortage has become an obsession, but it is fairly certain that long before our housing schemes have run their course there will be many alterations—if our housing Acts are not obsolete. A housing shortage and housing ideals may appear to coincide, because they present the opportunity, but they demand separate legislation. Meantime (apart from our housing schemes) what have we done to secure for everyone the elementary factors which lie at the root of good housing conditions?

NOTES

The Architectural Education Conference. IF the Conference on Architectural Education which was organised by the Royal Institute of British Architects has not provided any very striking or original ideas, it has been a highly important and successful meeting. Many subjects of considerable interest have been discussed, as will be realised from the lengthy reports we have published; but the importance of the Conference will not be fully realised until the proceedings are before us in full and we have a translation of the foreign speeches as well as papers, when we hope to discuss some of the questions considered by the Conference.

River Traffic. THERE is talk once more of attempting to ease the traffic congestion by utilising the river. It appears extraordinary to the Frenchman, who is accustomed to the Seine, that the Thames plays no part in coping with London's traffic. We are aware of the tidal difficulties and of the changed conditions that have existed since the removal of old London Bridge, but it surely cannot be beyond our power to restore the river to its former position as one of our main arteries. One would like to see a time-table worked out, with allowance for the tides, and we are convinced that many business and professional men who live in areas adjacent to the river would welcome an adequate service of steamers to take them to and from their daily work, so that they could escape being jammed into trains or scrambling for the omnibus. A little longer on the journey, entailing an earlier start, would be a slight inconvenience compared with the advantage obtained, especially in fine weather. Besides, what better route could there be for such short journeys as Cannon-street–Westminster, or Charing Cross–London Bridge?



Rome Scholarship in Architecture: Final Competition, 1924.

Jarvis Studentship: Accepted Design. BY MR. M. A. SISSON (London University School of Architecture.)

The Victorian Bedroom EVEN Mr. Lytton Strachey must admit that the reaction is coming. This generation has made sport of its predecessor, but the next will discover its grandmother. It will, of course, begin with Early Victoria; already the 1840–1850 house and London square are justly recognised for their qualities; certain mahogany and walnut furniture has a lightness and strength that make it welcome in any room, and the beaded screens and footstools of the period are snatched at in the sale room. But Early Victoria was separated by the best part of a generation from Mid; what is the collector to anticipate in Mid-Victoria? It takes courage to envisage the array of impossibilities, and it would take a barn to stow away the portly sideboards, dinner wagons, and mighty dining-room chairs. What of the imported Buhl cabinets and the elaborate overmantels? We do not think that their hour is at hand, but if we had the space to house it, we should begin to collect good bedroom furniture. The cabinet work from 1850 to 1880 is admittedly heavy, but for fine graining and fine timber it has never been surpassed. The wardrobes, dressing tables, and washstands (even if marble-topped) have a quality that must command respect, though to those of us who are wedded to earlier work affection may still be lacking. Admittedly much that we have mentioned is too cumbrous for the small modern house, but it is to be hoped that those occupying large, old-fashioned homes will wait for the return of what is essentially a Period in English cabinet work.

St. Bartholomew's Hospital. OUR readers are probably aware that last April Mr. Paul Waterhouse was appointed Honorary Consulting Architect to St. Bartholomew's Hospital, and it seems necessary to explain that this appointment does not imply either that the Governors of the Hospital are generally in favour of endeavouring to obtain architectural advice free, or that Mr. Waterhouse considers that hospital architecture should go unpaid. As a matter of fact the explanation is a simple one. Mr. Waterhouse was invited earlier in the year to advise as a paid consultant. He considered, however, that the nature of certain advice which he had previously given in the capacity of President of the Royal Institute of British Architects, together with certain considerations in relation to other architects, would render a paid appointment liable to misunderstanding and possibly to embarrassment. He, therefore, accepted the suggestion of the Hospital Board that he should join them as a Governor and under the name of Honorary Consulting Architect take part in the Board's consideration of the work in which professional architectural advisers may in due course be engaged.

Beerbohm Tree and William Burges.

A NEW story in "Studio and Stage" about Tree recalls a similar incident in which Burges was the chief character. According to the Tree story, the famous actor-manager, having expressed himself specially delighted with a piece of scenery painted for one of his notable successes at "His Majesty's," happened to hear some casual suggestions thrown out by a young lady, proposing some inconsequential changes which, however, would have spoiled the scheme considerably. The painter, Joseph Harker, says he was greatly surprised to hear Tree immediately agree, and the more so when, in his most engaging manner, he asked his artist to have these alterations made, and then, without waiting for any comment, hastily left the theatre. It was evident that discussion would not avail, so the stage hand was ordered by Harker to put the piece in question out of sight, away in the dock, where it remained untouched till the whole scene had to be shown. Tree had, in the meantime, made several inquiries about it, and was assured all was "well in hand." Anyway, the result caused Tree to exclaim on seeing the completed stage effect, "Excellent—heaps better than it was!" William Burges, it will be remembered, designed the famous stalls for Worcester College Chapel, Oxford. This work includes a series of excellent carvings of quaint animal forms conceived in the spirit of the Middle Ages. A. Robinson, the well-known Gothic craftsman, carried out the job. Burges called at his shop, near Drury-lane, to see these stalls prior to their dispatch to Oxford. He found many faults, worked himself into a bad temper, and left Robinson much upset by his fury. Nothing could be done to improve or change the condemned stalls, so they were put back waiting events. A few weeks later the architect called to make a further inspection. Burges expressed himself well pleased, and his ideas had changed though the carvings remained unaltered. We are reminded that Irving was all amiability when engrossed, say, in the character of the "Vicar of Wakefield," but when engaged in the rôle of "Mephistopheles" was apt to be "deuced unpleasant," putting people in a stew. Tree and Burges also had their moods evidently.

Souvenir of Palace of Arts.

THE illustrated souvenir of the Palace of Arts at the British Empire Exhibition, which we have received, is a very interesting record of the art of the Empire at large, and also of the art of the past, the retrospective Loan Collection of oil paintings, including several very representative examples. It was desired, so we are told in the Introduction, to mark the relation of United Kingdom paintings to those in the Overseas Galleries and so to present the widely-divergent impulses which influence the art of the Dominions. The collection is certainly very wide and varied, which is, perhaps, as much a weakness as a source of strength, but it enables us to form a view of the impulses moving through the arts at the present day. The illustrations include various examples of handicraft, and there is a small collection illustrative of the art of the theatre. Of the example of sculpture illustrated, the fountain figure and Laughing Girl, by Phœbe Stabler, have all her characteristic charm and vitality, and are fine examples of an art which seldom reaches in this country the highest distinction. Ecclesiastical art also forms the subject of illustrations which are of varied merit, lacking on the whole the atmosphere which would establish the reality of its impulse to affect us very much. But perhaps out of its real ecclesiastical setting this must be the case, and it is a question whether the art is furthered much or at all by this sort of publicity. The Souvenir is well printed and is an agreeable record of a remarkable collection of the art of our own time.

THE ADMIRABLE DECORATIVE EFFECTS OF PANELS IN THE HEADSTONES OF OUR CHURCHYARDS IS SUGGESTED ABOVE.

Roadside Trees.

WE are glad to see that the Director of the Royal Botanical Gardens at Kew, Dr. Arthur Hill, has drawn attention to our lack of imagination in tree planting. Wherever we go we see the horse chestnut, the plane, elm and lime, when we might enjoy an immense variety of smaller growing and other flowering trees—the flowering ash, silver birch, Norway maple, red oak and the tree of Heaven. The tulip and the maiden-hair tree are further suggestions. Few people are aware that the fan palm (*Chamerops Fortunei*) is perfectly hardy in England, and large specimens can be seen in Kew Gardens. Why not compete with Continental towns and provide a few avenues of these in our streets?

Lamp Post Signs.

WE note that the Lambeth Borough Council has again refused to allow its lamp posts to be used for purposes of advertisement. The lamp posts should undoubtedly be reserved for official notices. We can imagine how much confusion would be added to the streets if we were faced with an array of lamp advertisements mixed with official directions as to 'bus stops, fire, and ambulance notices, and the like. We sincerely trust that the advertising convention recently held will have stirred the advertising authorities to take active steps towards curbing the excess of zeal that too often lowers what should be a great and noble business into an instrument of offence to the public.

The Building Trade Dispute.

IT is some satisfaction to be able to state not only that a round-table conference has been convened by the Minister of Labour to continue discussions with a view to reaching a settlement of the building trades dispute and that the conference took place on Wednesday, but that the Liverpool men, who have repudiated the authority of the unions to which they belong, have accepted the invitation of the Minister of Labour to send representatives to the conference. On behalf of the national employers, the statement has been made that "when the Liverpool problem has been disposed of, there will be no issue which is not capable of negotiation," and as this was the opinion of Lord Buckmaster at the Court of Inquiry recently held we may hope for a speedy settlement of the dispute. The Disputes Committees of both the Employers' and Operatives' organisations met before the meeting on Wednesday to decide the policy to be pursued, but at the time of going to press no settlement had been announced.

GENERAL NEWS

Professional Announcement.

Professor Derwent Wood, R.A., has resigned the chair of sculpture at the Royal College of Art, South Kensington.

Architects' Estates.

Mr. George Haywood Truefitt, of Hornsey-lane, Highgate, N., and of Warnford Court, Throgmorton-street, E.C., formerly of Fern Bank, Tufnell Park, N., architect (net personalty £12,764), £13,439.

Brevet-Colonel Cecil Locke Wilson (50), of Garnhill, St. Andrews, Dinas Powis, Glamorgan, architect (net personalty £7,567), £9,090.

Welsh Hospital Extension.

Lord Tredegar, at Newport, Mon., recently, opened the new wing of the Royal Gwent Hospital, erected at a cost of £60,000, and part of an extension scheme which will cost £240,000.

English Furniture.*

This is a valuable little volume containing no less than 56 beautifully printed half-tone illustrations, with comprehensive descriptions of the various pieces. In a portion of his preface Sir Cecil H. Smith says, "It is not the policy of the Museum to encourage the removal of treasures from churches or other public buildings, but to rescue and preserve such as have lost their proper homes, so far as our limited financial resources make it possible"; surely a very admirable policy, deserving every support. The illustrations cannot be passed without a few words taken at random. Plate No. 4, "Three posts from the altar screen, Chichester Cathedral, about 1530." The beauty of design, their proportion, the execution of the carving, are wonderful. Plate 19, "Upper part of a stall end, from a Norwich church, 15th century, and upper part of a stall end from Norwich Cathedral," is another spirited piece of carving. The numerous chests, forms, and other articles illustrated are worthy of study by the student, collector, and lover of beautiful craftsmanship. Other volumes are to follow the present one, Late Tudor and Early Stuart (A.D. 1550-1660), Late Stuart to Queen Anne (A.D. 1660-1714), Georgian (A.D. 1715-1830).

* *Catalogue of English Furniture and Woodwork*. Victoria and Albert Museum (Department of Woodwork). By H. CLIFFORD SMITH, M.A., F.S.A. Vol. I. Gothic and Early Tudor. Price 2s. 6d.; by post, 2s. 10½d.

Builders' Estates.

Mr. Joseph Isaac Hallam, of Kitchener-road, Leicester, builder (net personalty, £57,418) —£85,496.

Mr. William Mailer, Jordanhill, Glasgow, slater, plasterer and tile roof contractor, £12,525.

COMPETITION NEWS

Rome Scholarship in Architecture.

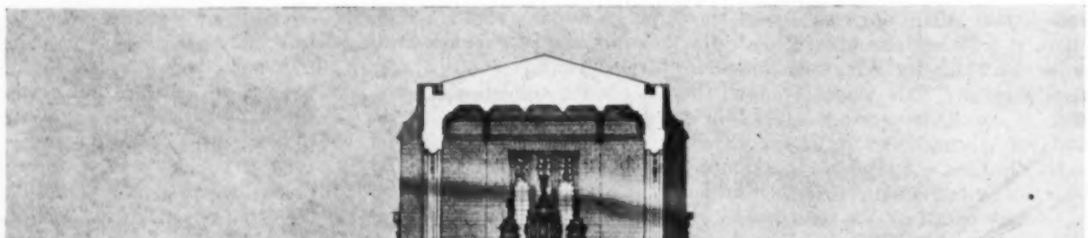
The scholarship in architecture offered by the British School at Rome was not awarded this year. The Jarvis Studentship (given by the R.I.B.A.), £250 per annum for two years, was awarded to Mr. M. A. Sisson, B.A., University of London, and is given in this issue. The design of Miss Elsie Rogers was placed second.

London Hotel.

Designs for a row of shops, with an hotel over. Premiums of £150 are offered for the selected designs. Particulars from Mr. H. Walduck, Imperial Hotel, Russell-square, W.C. 1.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Ross-Smith Memorial (Sept. 30; Feb. 21). Harrogate Infirmary (Sept. 30; May 30). Hamilton War Memorial (Sept. 1; May 30). Glasgow High School Memorial (Sept. 30; June 13). Masonic Memorial (Aug. 22; June 13). Bexhill Entertainment Hall—Banned by R.I.B.A. (Sept. 1; May 30).



Rome Scholarship in Architecture: Final Competition, 1924.

Design for a School Chapel.

Jarvis Studentship: Selected Design. By MR. M. A. SISSON (University of London School of Architecture.

CONSTRUCTIONAL ASPECTS OF THE LIVERPOOL CATHEDRAL

BY J. E. MARSHALL, B.Arch.

Senior Lecturer in Architectural Construction in the University of Liverpool.

THE visitor to the new Cathedral will, as he approaches, see at once that Sir G. G. Scott has made effective use of comparatively large plain wall surfaces and heavy masonry masses. Larger windows and less wall area came as a natural corollary to increased facilities for the manufacture of glass during the fourteenth and fifteenth centuries. This reduction of wall area and the increase of thrust from the vaulting meant larger buttresses. Here in our new cathedral Sir G. G. Scott makes use of ample buttresses and wall area as though preparing the building to withstand the elements for all time in its elevated and exposed position. The plan is, in the main, symmetrical, and its expression in the superstructure will result eventually in a grouping reminiscent of the classic tradition.

To these simple facts probably more than to any other is due the feeling of repose and restfulness which the building pre-eminently gives—in contrast to the disturbing quality that is so often to be found in authentic examples of Gothic architecture. The form of the design is distinctive and modern: its powerful masses and its detailed mouldings have a boldness and vitality of a new order.

In this stupendous undertaking many interesting structural problems have inevitably arisen. The present article is written mainly to draw attention to some of the problems which were met with, some of which have been solved by the men on the spot, under the direction of the clerk of works, Mr. Pittaway, who is to be congratulated upon the care, skill and resource he has shown in his great task. There is almost the same absence of finality in the problems involved in this class of work as there is in the style of architecture, which in some mysterious way fits it for the architectural expression of religious ideas.

The main structural features are in themselves almost bewildering. The great buttresses projecting some 30 ft., at the base, from the main walls are required to take the thrust of the vaulting of the choir. Buttresses of such dimensions would appear to be unnecessary if thrust from the vaulting were alone to be considered, especially when we find that, in effect, they do not terminate at the main wall. Anyone paying a visit for the first time would not realise, until he enters, that there are aisles about 13 ft. in width flanking the choir; and furthermore, that the vaulted ceiling delivers its thrust upon the inner piers. On further examination, however, it is seen that these piers are really part of an extension of the buttresses. That is to say, the buttresses are continued, or arched at certain points across the aisle-space and terminate in the piers. This renders the buttresses still more substantial, and it is probable that the heavy projecting buttresses will receive only a slight amount of lateral thrust from the vaulting. Such an arrangement has much to commend it, for here we have solidity and firmness, convincing qualities which usually characterise the classic rather than the Gothic mode of building.

Owing to the nature of the subsoil and having regard to the immense concentrated loads from the superstructure, the foundations were taken down a considerable depth (varying up to 54 ft.), until the solid hard rock was reached. The excavations, when made, were filled up to the ground level with either Portland cement concrete or hard blue bricks. Countless stones now rise one upon the other, forming the massive piers which rise to a great height until they appear to lose themselves in a bluish haze.

Here is the vaulting, simple yet complex in its construction, where problems have arisen which must have taxed the most skilled. The vaulting over the choir has a span of about 47 ft., and is formed into a pair of quadripartite vaults to each bay. From a respond over the apex of each main arch spring the intermediate ribs. The main vault, on a magnificent scale, begins to spring above the lofty arcade, and in place of a clerestory is a blind gallery separately vaulted. A fine effect is given to the delicate treasting spanning the dark gallery by the light which enters the choir in each bay by a single large window in the main wall behind the arcade.

The main ribs of the vaulting are 3 ft. deep by 1 ft. 4 in. thick. The filling consists of courses of long stones, each course forming an arch from rib to rib in the French manner. Thus the vault is more or less domical in form, a feature which gives strength and stability to the whole fabric.

Some of the most difficult problems in masonry are those relating to vaulting, the perfect execution of which, from the knowledge required of projection and of the intersection of curved surfaces, has always been the severest test to which the skill of the mason can be exposed Mouldings on diagonal ribs vary in profile on the same side of the rib, and the variation is not equal on both sides. The mouldings must follow, to some extent, the peculiar twisting surfaces of the vaulting. So much do these vary in each groin or rib, as well as in the individual ribs which ascend in the vault to meet at a central point, that in order to hide these discrepancies, or at least to make a fair junction possible at the crown, an ornamental boss becomes a real necessity.

A finely executed piece of work is to be seen in the vaulting between the last main arch of the choir and the arch of the east window, which is higher than the former by about 2 ft. This difference in the level of the two arches is a device adopted in order to correct an apparent drop in the height of the east window when viewed by the spectator from below. The surfaces of the stone filling are here twisted into very complex forms. This can best be seen from the blind gallery previously referred to.

We come now to the most ingenious and probably the most daring piece of construction, namely, the great vault over the first bay of the central space. It is impossible to comprehend its magnitude from below. One must view it from above the vault itself to be able to grasp its true dimensions, and the best position is directly over the large central boss. Looking at the plan it will be seen that the problem is to cover the crossing between the future tower and the choir from four points of support on one side, and two on the other; and at the same time the height has to be raised 3 ft. The space to be covered is approximately 50 ft. by 87 ft. The four main ribs meet at the large central boss, but the ribs on opposite sides are not in the same plane—because of the irregularity of the space covered—and yet two of them form, in effect, one complete arch some 80 ft. or more in span. These main ribs, though large in section (3 ft. 6 in. by 15 in.), appear to be quite small when compared with the large span. The security of the rib or ribs is in their contour, for though they may follow the lines of a pointed arch, they nevertheless approximate a parabolic outline which would give the best results, structurally, in such a case as this. Sir G. G. Scott himself must have had some doubt about the stability of this delicate-looking rib or arch before the smaller ribs and the filling were placed in position. It is doubtful if there exists any structure built in stone quite equal to this. The vaulting rises from its springing about 50 ft., a height much foreshortened when seen from below. The large central boss has an over-all measurement of roughly 6 ft. by 5 ft., and is made up of five stones, including a cylindrical one in the centre to form a key. Most of the smaller bosses are made in one piece, and contain some 40 to 50 cubic ft. of stone in each.

A striking example of the complexity of the vaulting is seen in the first bay of the central space, between the main arch of the choir and the first rib. Part of the face is hidden, so that the horizontal direction of the face is not visible. From the point of springing of the filling, the face begins to twist and continues to do so, horizontally, in its ascent, until about three-quarters of a circle has been traversed, and then returns part of the distance before the surface ends at the crown of the vault.

These examples of elaborate and difficult construction in stone are all the more remarkable because we may be said to have passed the age of masonry craftsmanship for such purposes. For more than half a century, architects have spanned their great spaces by steel and reinforced concrete. Stone has come to be used more and more as a screen or veneer for the protection of a metal or ferro-concrete skeleton. In the Liverpool Cathedral the stone-mason has come into his own again as a great constructive craftsman.

OBITUARY

The death took place recently of Mr. Frank A Brewerton, A.R.I.B.A., a well-known Manchester architect. Mr. Brewerton, who died at the early age of thirty-six, received his architectural education at the Manchester School of Architecture. He took a distinguished part in the war, obtaining the rank of Captain and receiving the Military Cross.

The death took place recently of Mr. Ernest G. Davies, M.S.A., at the age of 53. Mr. Davies was articled to Mr. John Parker, City Surveyor, Hereford, and studied at King's College, London. He commenced practice in 1893 at Hereford. Among his publications were several pamphlets on healthy dwellings. His works included Sellock Suspension Bridge, over Wye; Isolation Hospital, Burghill, Hereford; Leominster Cottage Hospital, and a good deal of restoration work.

THE BRITISH ARCHÆOLOGICAL ASSOCIATION

BY THE REV. P. H. DITCHFIELD, M.A., F.S.A., Hon. A.R.I.B.A.

THE eighty-first Congress of this venerable society was held this year at Hastings during the first week in July under favourable auspices. An extensive exploration of the county of Sussex and part of Kent was planned and accomplished, and no better centre could have been chosen than the town of Hastings, where excellent accommodation was found at the Albany Hotel. The Association met under distinguished patronage; amongst the patrons was Lord Curzon of Kedleston, who kindly promised to welcome the members at Bodiam Castle, which he had purchased and restored, and to describe it to them, but at the last moment he was prevented from attending owing to Parliamentary duties. Amongst the other patrons were the Marquess Camden, the Earl of Chichester, Lord Leconfield (Lord-Lieutenant of Sussex), Lord Eustace Percy (M.P. for Hastings), Lord Ritchie of Dundee, the Bishop of Chichester, and others in the county. The reception committee included the Mayor of Hastings, the Archdeacon of Hastings, the Dean of Battle, and others.

The Association was very fortunate to have again as its Congress President, Mr. Charles E. Keyser, F.S.A., who has acted in that capacity for seventeen years, and also two indefatigable organising secretaries, Mr. Philip M. Johnston, F.S.A., and Mr. John E. Ray, whose knowledge of the antiquities of Sussex is unrivalled. Mr. Bagster-Collins acted as secretary and his grandfather as treasurer. About sixty members were present at the Congress, including the Editor of the Journal of the Association, Mr. Harold Sands, F.S.A., Mr. Webb, Mr. and Miss Reginald Taylor, F.S.A., Mr. W. Dale, F.S.A., Mr. A. Radford, and many others.

The proceedings began after luncheon at the Albany Hotel with an exploration of the antiquities of Hastings under the guidance of the organising secretaries. By permission of the Earl of Chichester, Hastings Castle was first visited and described by Mr. Ray. And here I may refer to an earlier visit of the Association to Hastings nearly sixty years ago which called forth an excellent work by the late Mr. Thomas Holwell Cole on the "Antiquities of Hastings." He tells how cruelly the sea has dealt with the town, washing away the Old Burg. Archæologists have gained much knowledge since that writer's day. He claims a British, Roman, and Saxon origin for the town; but modern antiquarians are more cautious; and whereas Mr. Cole said on Castle Hill there once stood a Saxon fortress, Mr. Ray states that there is no evidence of this, at least, so far as masonry is concerned. He stated that the first castle erected on that site was built by William the Conqueror, who landed near Pevensey and then marched on Hastings, where he raised a typical Norman temporary castle of timber, erected on a mound with a stockade around it. Such a castle is faithfully depicted in the Bayeaux tapestry. This was brought over ready for raising from Normandy, and was put together in the west side of Castle Hill during the ten days which intervened between his landing at Pevensey and his march on Senlac, the battlefield so fatal to English hopes. The site of this castle has disappeared, the west side of the hill having been cut away for the building of houses, and the outer ditch of the castle has also vanished and also an advanced barbican.

The Conqueror bestowed the Rape of Hastings on his faithful follower Robert Count d'Eu, who founded within the precincts a collegiate church about the year 1070. He was faithful to William during the troubles of 1088, when Robert, his son, rebelled against him. The curtain wall was built about 1150, the keep between the year 1170-80, followed by the central tower and chancel of the church. The remains of the castle are slight. According to the plan we can trace the eastern entrance and the towers flanking it; the postern tower communicating with a passage in the thickness of the wall; the castle mound and keep; the north gateway and dungeon. Of the church there remain the nave with chancel arch (which we believe to be a reconstruction), chancel, sacristy, vestry, chapter house and deanery, sally port and ruined tower, Norman turret, drawbridge gateway and portcullis, and on the west wall traces of machicolation. The mound was trenched in 1824, but nothing was found.

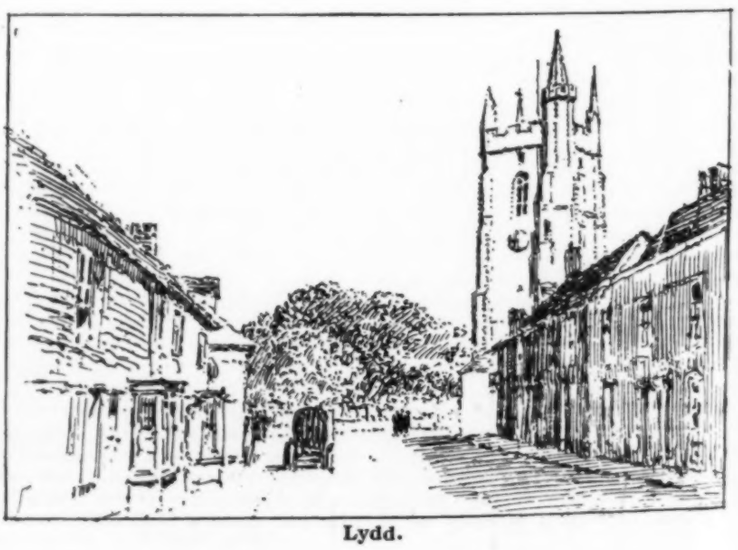
Mr. Johnston said that Mr. Herbert was the author of the reconstruction of the chancel arch, which consisted of two orders, the inner order resting on a corbel which had stiff-leaved foliage of a very fine and elegant description. He placed the date of it 1170-80. It was of Caen stone, which was so frequently used in Sussex buildings, having been easily brought over from Normandy. The effect of materials on the work in Sussex was very noticeable. Caen stone was easily worked, and excellent results were obtained. He pointed out the remains of a staircase, the supercession of a short choir and the erection of a tower. Herring-bone was observable. The smallness of the building was owing to the cramped site.

The company then adjourned to St. Clement's Caves, which were viewed by invitation of the Mayor. They were known in the eighteenth century, and Mr. Butterfield said they were entirely of geological formation. The caves were purely fresh-water formations, as revealed by the fossil remains of plants and fishes, and were formed when Britain was joined to the Continent and the Weald of Sussex and Kent constituted a delta of a river that flowed here from what is now France. The caves had been cleaned and brushed up some time ago, so that not a vestige of the former contents were to be found. They were rediscovered in 1827, when a new entrance was constructed.

Hastings had two enemies, the sea and the French, who often made raids on the coast of Sussex. The St. Clement's Church belonged to the Abbey of Fécamp, and the earliest building was destroyed by the waves. A new site was granted to the Abbey in 1286 to replace the older edifice. The French attacked Hastings in 1378, and destroyed the church except part of the walls and the lower portion of the tower. A generous citizen, William de Lynda, at the end of the fourteenth century came forward and built the present church, a good specimen of Perpendicular building, though it has suffered much at the hands of Puritans and "restorers." A restoration was made in 1849, and a very drastic one by Butterfield in 1874. There were chantries founded in the fourteenth and fifteenth centuries, and St. Clement's, the patron saint of sailors, was always regarded as a sailors' church. The sailors' chantry was founded in 1442 and endowed. The tower is curiously situated at the west end of the south aisle. In the time of Queen Elizabeth the Corporation of Hastings gained possession of the church, and an order was made that all chantries, bells, and other valuables should be sold in order to provide a harbour. The most interesting feature of the church is the font, which is very interesting and splendid. It is of Perpendicular date and octagonal, and sculptured with the implements of the Passion: on the west, the Cross and Crown of Thorns; on the north the Scourging Post and Scourges; on the east, the Lantern on a Pole, Ladder, and St. Peter's Sword; on the south, the Reed and Spear crossed; on the small shields, Hammer, Pincers and Cock. The vaulting of the tower is very charming, showing bosses of foliage. There are two piscinæ in the south aisle showing the position of the chantries. There are three brasses which have lost their effigies, and an incised cross-slab with fleur-de-lis. Beneath the sanctuary is a crypt used as a sacristy. The quadruple sedilia are reproductions of ancient work. The eighteenth-century sedilia are very fine. There are two stoups. Mr. Johnston pointed out the niches in the piers next to the east end where the rood beam was fixed.

Motor coaches conveyed the party to Rocklands, the house of Major and Mrs. J. H. Whittaker-Swinton, R.E., who, in their beautiful garden, whence noble views were obtained of the sea and hills and glens, entertained them to tea.

A Norman building once stood on the site of All Saints' Church, but only a few traces remain, save the stones built up in the walls which reveal Norman axe-tooling, and perhaps the piscina in the south wall, and the trefoiled arch cusps. The present building was erected (according to Mr. Ray) in 1436, and Mr. Johnson declared that there was nothing else like it. He pointed out the curious shape of the arches of the nave arcade, which are nearly but not quite Tudor. These arches are four-centred, and are very rare, especially in Perpendicular work. The windows are nearly all modern owing to Butterfield's very drastic restoration; he swept away many mural paintings, showing figures of ships connected with the representation of St. Christopher. There was an altar dedicated to St. Nicholas, who



Lydd.

vied with St. Clement as the patron saint of sailors, as evinced by the sculptured font at Brighton.

During the drive homewards to headquarters some stoppages were made in order to view some of the old timber houses which remain in modern Hastings. In All Saints'-street there are several of the fifteenth and sixteenth centuries, with steep roofs. One of these was the residence of the mother of Sir Cloudesley Shovel, Admiral. Besides this there is the Old Town Hall in High-street, built in 1823; Old Hastings House, built by John Collier (Town Clerk and Mayor early in the eighteenth century), and an early fifteenth-century house in Bourne-street, with projecting upper story.

After dinner a reception was held at the Town Hall by the invitation of the Mayor (Councillor Blackman), who extended a cordial welcome to the Association. The President delivered an interesting presidential address.

On Tuesday, July 1, motor-coaches conveyed the company to Battle Abbey, to the foundation of which, by William the Conqueror, the town owes its origin. It was the first post-Conquest Benedictine house in England, and stands on the site of the famous battle. The beautiful gatehouse was described by Mr. Johnston as a most perfect monastic building. It was erected in 1338, incorporating some Norman fragments. The blind tracery he pronounced authentic. It was built of Sussex stone, and Mr. Johnston pointed out the Kentish tracery in the arcade of Late Decorated work. The string-course was continued round the octagonal turrets. We noted the niches for images, the windows with wooden mullions, just as they were built, and the delightful panel work. On the inner side the same style was evident extending from the Middle Decorated period to the fuller perfection of that style. Our guide pointed out the sharp cusping, the Kentish tracery which was found in North Oxfordshire and might be attributed to William of Wykeham, the oilet holes, the range of curious grotesques, including figure half woman, half beast, demon, monkey's head, lion's head, etc. The front is crowned with battlements with surface ornament, and there is a charming effect of light and shade. Mr. Johnston told the story of its foundation, which need not be repeated here. The Abbey was consecrated in 1094 and had great privileges. At its dissolution in 1539 it was one of the wealthiest. It has suffered much by pillage. Of the church nothing remains save part of the south wall of the south aisle; and of the crypt. The great dormitory shows French characteristics. There was much interchanging thought and work between France and England during the Norman and Plantagenet periods. The church was cruciform in plan, and had a short nave. The refectory was on the south side of the cloister, the dormitory large. The walls of the Hall are covered with modern tapestry. There is a good chimney-piece and this hall is the only part of the Abbey which retains its old features. The roof was erected in the latter part of the fifteenth century. The windows have been modernised, but the corbels are original. It is of the hammer-beam type and there are few of these in Sussex. The Dissolution came in 1538. Part of the Abbey was pulled down, and the rest adapted for the uses of a layman's mansion. The Abbey was given to Sir Anthony Browne, who built a large house out of the Abbey materials. This house fell into ruin, and the present mansion is modern in the style of the Gothic of "the Fifties" of the last century. The Abbey buildings suffered from neglect and mutilation. The refectory is an imposing building with its range of lancet windows. The arrangement of the three crypts is unique, an outcome of levels of the ground. Our guide compared it with Mont St. Michel.

Dedicated to the Blessed Virgin, Battle Church was founded for the servants of the monastery by the monks in 1110, and illustrates well the growth of a parish church. In 1110 it consisted of a plain Norman nave and chancel with no tower. Forty years later the nave was enlarged and the tower added. In 1180 the arcades and aisles were constructed. French influence is seen in the capitals, which exhibit the palm-leaf decoration. The west end is purely Early English; the windows and clerestory have lancet windows, and the latter are placed over the spandrels rather than in the usual place over the apex of the arches. There were some most interesting mural paintings of the fourteenth century, an account of which was published in Vol. II of the *Journal* of the British Archæological Association, but these were swept away by Butterfield. Want of space prevents me from describing these vanished beauties. There is a Norman font of Purbeck marble showing an arcade of circular-headed arcades Butterfield was guilty of an absurdity in raising it to a considerable height and placing on a new base The east end is Early English, but the windows are Butterfield's work. There is a fine alabaster tomb of Sir Anthony Browne and his wife (1548). In the fifteenth century the north aisle was widened, and old glass remains in the top lights of the windows. There is a curious squint window in the north aisle which seems to indicate the presence of an anchorite's cell.

Mountfield Church, dedicated to All Saints, is a typical village church. The nave is Norman, having two Norman lights deeply splayed of the eleventh century. The chancel arch is small, with a plain abacus of the late eleventh or early twelfth century date. There are two pierced squints of the fifteenth century. The rear arch of the doorway is Norman, the tower low and squat, a common type in Sussex, with a wooden staircase, the treads and rises being solid pieces of timber of triangular shape. The chancel is Early English, the east window Decorated, but the tracery is modern. We noted the piscina, the seventeenth-century altar rails, the priest's doorway, and the unusual roof, which seemed to have anticipated the hammer-beam roof of the fourteenth century. It is very early. The rafters are hidden by plaster as in the thirteenth-century roof of the chancel. The font, which is large enough for total immersion, is Norman, but was ornamented later with Tudor flowers and shells.

There are very slight remains of Robertsbridge Abbey, founded by Alured de St. Marion in 1176. It was one of the three great Sussex monasteries dissolved in 1538. The existing remains are the thirteenth-century crypt, under the Abbot's Hall (now incorporated in a farmhouse), the ruins of the refectory and vaulting under the dormitory, the altar stone, and part of the precinct wall. The site calls for excavation, and it is good news that the active Sussex Archæological Society is about to perform the work.

Salehurst church is in many ways remarkable. It is a large church founded by the Cistercian monks of Robertsbridge for their tenants. It is large aisled, with six arches on each side. The mouldings are different. The arches on the south side date from 1200 to 1210, on the north from 1230 to 1255. The aisles were rebuilt in the Perpendicular period. There is some ancient glass depicting birds—a duck, falcon, etc. The chancel arch has been rebuilt, and the chancel is Decorated. The altar slab has been brought here from Robertsbridge Abbey, and serves as a pedestal for the credence table. The south porch is of oak with wooden tiles. The font is Norman and has three salamanders round the base and a wooden cover.

At Bodiam Castle Mr. Harold Sands, F.S.A., read a paper and led the company around the fortress.

The chancel of Northiam Church was modernised in 1835. The striking feature is the tall west tower with stone spire; iron stone was used in its construction, flanked with heavy buttresses. Part of the lower portion is believed to be Saxon.

By invitation of Major Frewen, the beautiful gabled half-timbered house called Blackwall was visited. In the evening a learned paper was read by Miss Rose Graham, who had the honour of being the first lady F.S.A. elected by that Society, on "Battle Abbey."

The first visit on July 2 was to Guestling Church, which has a modern appearance, having been greatly restored in 1884 and the interior rebuilt after a disastrous fire in 1890 caused by a defective heating apparatus. Some of the details are interesting, and the remains of old work, but the church is so modernised that it is not necessary to dwell on them.

Icklesham Church is full of interest. It was originally Norman, but has been altered and enlarged at different periods. The nave, aisles, tower and three small windows in the south aisle are Norman. The arcades date from 1130-40, and the circular piers have curious capitals of various patterns, including the ornate scollop of 1175 date. The tower dates from 1130, and is in three stages. There are double lights in the top story. The chancel is wide (1200 c.), and the stones are axe-tooled, not worked with a chisel. The corbels are interesting, composed of volutes, and seem of Eastern origin brought over by the Crusaders. The walls are lofty, and seem to indicate a Saxon date. The chancel is very large, and there are many other details.

At Winchelsea we first visited the Court Hall, the first building erected on the new site of the town with stones brought from old Winchelsea, which now lies beneath the waves. So much has been written upon the town that a detailed description is unnecessary, though Mr. Johnston most ably described the church, which is magnificent and contains so much of absorbing interest. A visit was paid to the ruins of the Greyfriars' House.

At Rye we were met by Mr. Adams and others who conducted us to the Land Gate, the Old "Flushing" Inn, the Town Hall, where we received a municipal welcome, and where the town maces and historical documents were exhibited, and then to the Church, Ypres Tower, and the timber houses of Watchbell- and Mermaid-streets.

Playden church has a transitional Norman nave (1180-1190) with aisles and central tower. The arcades are very similar to Rye church, with circular and octagonal piers. The west arch is pointed, but they all belong to the same period. The same masons who built Rye were evidently employed here. The font is Perpendicular, but it has probably been recut. A special feature is the carved screen, probably the earliest in Sussex. There is a grave slab to the memory of a Flemish brewer.

The chancel arch of Peasmarsh Church has the appearance of Saxon work, but Mr. Johnston pronounced it to be Norman. It is horse-shoe in shape, and has imposts with mouldings of the star pattern, and little mouldings beneath, a rather unusual arrangement. Two beasts are carved on the chancel arch, representing lions guarding the sanctuary. The piers of the nave are square with shafts at the corners. The chancel is Early English, but it has been rebuilt. We noticed the squint, piscina, blocked-up low-side window, and interesting sedilia. The priest's door has a segmental head, and there is a plain pointed recess in the wall which is rather a puzzle, probably a reliquary.

Udimore Church Mr. Ray described as a prebendal church of St. Mary in the Castle, Hastings. The plan suggests Saxon work, but it is purely Early English (*c.* 1300). There are nine lancets in the chancel, also an aumbry, piscina, low-side window, and a reliquary under the central lancet of the east window. The chancel arch springs from corbels. The south side of the nave was pierced for the formation of an aisle, but this plan was abandoned. The Norman piers have ornamented capitals of foliage similar to Guestling. There is an early twelfth-century north door.

Brede Place is an interesting house, which we were permitted to visit by Mrs. Morton

Frewen. Originally there was an open central hall with sixteenth-century alterations and additions.

Brede Church is of mixed dates, somewhat difficult to read. Mr. Johnston said that the oldest work was the Early English of A.D. 1200. In the north aisle there is a lancet, but all the other windows are Perpendicular, and there is no Decorated work.

The Oxenbridge window is exactly like the French flamboyant work. The south aisle of the chancel is the Oxenbridge chantry, and contains the fine monument of Sir Goddard Oxenbridge (1537) with his figure as a knight in armour and head resting on his helmet and his feet on a lion. His arms appear on the tomb, which is made of Caen stone probably worked by Frenchmen.

After dinner, Mr. John E. Ray delivered a very interesting lecture on "Old Hastings."

On July 3 we first drove to Bexhill, which most people imagine has no antiquities. There was, however, a church here in Saxon times. In 1878 a most interesting stone was found under the west arcade below the floor. Mr. J. Romilly Allen saw and described it. It measures 2 ft. 9 in. by 1 ft. 3 in., and is truncated. It shows wonderful interlacing work and dragons, and belongs to the Anglo-Saxon school of sculpture. It is very peculiar and the most important in Southern England. It was probably made in the North and brought down South by St. Wilfrid. Mr. Ray produced evidence from various charters to prove that there was a Saxon church here. A Norman church was built early in the twelfth century. The walls of the nave were pierced, and some herring-bone work disclosed, probably part of the Saxon church. The Early English chancel was ruthlessly destroyed in 1878. There were several chantries, one in an unusual place nigh the chancel arch, and one in the north aisle, which subsequently was used as a school in Elizabeth's time kept by Dr. Rye. Mr. Johnston stated that the church had suffered from horrible mangling. There is some ancient glass in a window in the north aisle which has had strange wanderings. Horace Walpole got hold of it for his "Gothic" mansion of Strawberry Hill. At his death it was sold and was taken to Hardwick House. Now happily it has been restored to the church.

A visit was paid to the Manor House of Bexhill, which formerly belonged to the Bishops of Chichester. There are several records of the visits of Bishops, and their steward lived there. It was erected in 1450.

At Pevensey Castle Mr. Harold Sands described that strong Norman keep within the Roman castrum. He had conducted the excavation of the fortress and had found it a very difficult undertaking. The church was described by the Rev. A. Evans, who said that there was a wooden Saxon church here. The present building was begun in 1170 and the work completed about 1270. There is a deep chancel with early English windows and wide aisles. The chancel is unusually long. The chancel arch is early English, and has capitals adorned with stiff-leaved foliage, the mouldings of which Mr. Johnston pronounced to be unique. The nave is remarkable for its mediæval beauty. After the Mise of Lewes, Pevensey Castle was besieged by Simon de Montfort, who did much damage to the church, which was restored in 1264 in the Early Decorated style. Green sandstone was the material used. The arch on the north was the entrance to a chantry destroyed at the Reformation and rebuilt.

Westham Church was visited and described by Mr. Ray. It is cruciform in plan, and on the east of the transepts were two horse-shoe-shaped apsidal chapels, now removed; but traces can be seen. The chancel, too, had a curved end. The windows are all Norman, but an elaborate Norman doorway has vanished. A scratch dial was pointed out. The church consists of early Norman and late Perpendicular. The transepts are small, and there is a fine west Perpendicular tower. The coarseness of the trefoils in some of the windows denote the lateness and degeneracy of the style. Mr. Johnston stated that the roof was unlike any other in Sussex. There were queen posts and curved braces, and seating plates resting on corbels, very simple and thorough. The east window has some original glass representing the Apostles. There is a charming ancient Perpendicular screen. The rood-loft has been reconstructed and carried too far forward. We noticed in the chapel a fine old altar-slab with the five crowns which for some time had been used as a tombstone, three piscinæ, some masons' marks, and outside a stoup, and a dedication cross under the east window.

We then journeyed to Eastbourne under the guidance of the Rev. Walter Budgeon, and visited first the house called "the Parsonage House," which was the manor house of the Rector of Eastbourne. It was built by Hugh Rolf (1519-49). Records of the house go back to the reign of King John.

Eastbourne church has undergone several restorations, and is a fine large building with chancel, nave, clerestory, and aisles, and is a good example of transitional Norman work (1170). The chancel arch is adorned with zig-zag. The capitals of the chancel have stiff-leaved foliage. In the fourteenth century were erected the sedilia, piscina and Easter Sepulchre, and the fine screens.

A visit was paid to the Lamb Inn, which has an early thirteenth-century crypt.

Jevington Church was described by Mr. Budgeon. It has a Saxon tower wider than the church, and resembles Barton tower, Lincolnshire, and shows herring-bone and long and short work. The nave is twelfth-century, and the chancel arch was formerly semi-circular. In the thirteenth century the north aisle was added. In 1872, £2,000 was spent, and a drastic restoration took place. In the north aisle there is a curious cross arch. The roof is very fine, of mediæval date, altered in the fifteenth century. It is a wagon roof of king-post and hammer-beam alternately. There is a curious piece of Saxon sculpture showing Our Lord bruising the serpent's head, the cross being driven into the mouth of the serpent.

The church of Hailsham was described by Mr. Johnston. It is mainly Perpendicular, but there are traces of an earlier church. It is mentioned in Domesday. There is some flint herring-bone work in the south wall of the nave, and the head of a very small window which may be pre-Conquest. It has been very heavily restored, and weird patterns carved on the piers. The arcade piers and chancel arch are poor. The chancel is better, with its piscinæ and sedilia excellently carved. The twin capitals resemble those in the cloisters of St. Saviour's, Southwark, or in France and Spain. They are exotic and probably taken from some priory. The tower arch is of reddish sandstone

After luncheon at Hurstmonceux, we visited the castle by the permission of Colonel the Hon. Claude Lowther, M.P., which was built in brick by Sir Roger Fynes in 1440. It illustrates the development of the feudal fortress into the manor house. The neighbouring church is transition Norman with Perpendicular windows. The capitals of the piers resemble those at Battle, and were probably carved by the same masons. The south arcade is poor, but the capitals are beautiful, and in the south aisle there is a fourteenth-century window, square-headed. The chancel has a modern look. The east window is Perpendicular. There is a magnificent tomb, with elaborate heraldry, of Thomas, eighth Lord Dacre, and his son Gregory (1534); a fine brass (1402) to Sir William Fienes with a Norman-French inscription. The font, like that at Hailsham, is peculiar to Sussex, early Decorated. Outside, the chancel and chapel are faced with brickwork, and inside the tower. This is a pale yellow colour, and was brought over from the Netherlands in the thirteenth century.

After dinner, Mr. P. M. Johnston gave an interesting lecture on "Sussex Churches."

On July 4 a very interesting day was spent in the charming district of Romney Marsh, under the guidance of Mr. F. C. Elliston Erwood. Brookland Church has a strange timber detached belfry and a very important twelfth-century font, which was described by Mr. J. C. Druce, F.S.A. Then Old Romney Church and then Lydd, called the "Cathedral of the Marshes," an important little town, the charters and documents of which we were permitted to inspect, and New Romney Hope, Ivychurch, Appledore, followed. In the evening Mr. E. Reginald Taylor, F.S.A., read an excellent paper on the Cinque Ports.

On the last day of the Congress it was arranged to utilise the morning by driving to Tunbridge Wells. We were thus enabled to see Echingham Church, a complete example of a fourteenth-century village church; Burwash, with its Norman tower; Ticehurst and Bayham Abbey of the Premonstratensian Order, and with that visit the Congress came to an end.

Design for a London Plaquette.
Submitted by MR. C. F. A. VOYSEY in the recent competition.

BRITISH ARCHITECTURAL STUDENTS' WORK

By ARTHUR J. DAVIS, F.R.I.B.A.

THE exhibition of work of the schools of architecture in Great Britain and the British Dominions on view at Devonshire House in connection with last week's International Congress of Architectural Education, was of exceptional interest, as it not only gave a fairly comprehensive survey of the results obtained in latter years by these schools, but naturally invited comparison with the foreign exhibits which were being shown at Grosvenor House. It is regrettable that it was not found possible to show the entire exhibition under one roof, but owing to the number and size of the drawings and to the limitations of wall space this was not feasible. As it is, only a restricted number of drawings sent by the different schools were displayed, but these were well selected by the Hanging Committees and were sufficient to give a general idea of the work completed during the last few years.

The exhibition as a whole was impressive by the quality of the work shown, and proved conclusively that the student of to-day is being trained in a vastly more efficient and comprehensive manner than was the case with the last generation. Our principal schools are rapidly forming architects who, when they have obtained the practical experience inseparable from a comprehensive knowledge of our art, will eventually give us buildings worthy of our best traditions. It is safe to say that already we can challenge similar foreign institutions of much older standing and reputation.

The main object of a theoretical training is not so much to manufacture architects of genius as to raise the general standard of the profession, and that this object is being achieved cannot be doubted by any impartial visitor to the exhibition.

To one who has followed with interest the development of architectural instruction in this country in recent times, it is gratifying to be able to register an increasing progress towards a broader and more scientific outlook, which is apparent in the results of each successive session. The course of study has been extended to five years, and the students are obliged to supplement their theoretical training by spending a certain time in the offices of practising architects, where some knowledge of the routine of architectural practice is attained. Much adverse criticism has been levelled at our schools, but a visit to the exhibition cannot but impress by the variety of the subjects dealt with and the skill with which many complicated problems have been handled. A regrettable omission is the absence of programmes of the schemes exhibited, as the subjects of many of the designs have to be guessed, and this makes intelligent criticism difficult.

Although it may be advisable in exhibitions of architecture which appeal mainly to the general public to favour perspectives, photographs, and elevational drawings in preference to studies in planning, I think this should not have applied where the principal object was to show British and foreign architects the aims and achievements of our schools. Nowadays much is heard about the necessity for treating our problems in a modern manner and discarding the shackles of past tradition; yet we often see school plans which take no account of the evolution of modern practice and the use of new constructional materials which have altered the entire character of recent buildings.

In some of the Dominion and provincial schools the students show a certain weakness in the handling of large planning compositions, and special attention should be given to this branch of architecture. In the design of façades and the treatment of interior decoration much help may be obtained from existing examples, books, and other sources, but in the main conception of a building and in the harmonious disposal of its internal parts the architect is faced with problems which he alone is able to solve, and the real success or otherwise of his efforts will depend largely on his knowledge of planning in a logical and effective manner. I also note with regret that the study of domestic architecture has been somewhat neglected of late; this is to be deplored, as our superiority in this branch of architecture was acknowledged all over the world, and we should endeavour by every means in our power to retain our reputation in this field.

It is evident that the senior students of the Architectural Association and Liverpool Schools have acquired a knowledge of design sufficient to enable them to express their ideas without being hampered by a lack of skill in technical ability.

The works of the prize winners of the R.I.B.A. series of studentships were displayed in the entrance hall of Devonshire House. Most of these are already well known, and it will be unnecessary to comment on them in detail. They formed a very inspiring collection, and in most cases are remarkable for the excellency of their draughtsmanship and rendering.

THE ARCHITECTURAL ASSOCIATION.—On the landing and staircase and in Room No. 1 some of the recent works of the Architectural Association were to be seen. The professors of this school have evidently been able to inspire a strong feeling of enthusiasm in their students, and a large number of the designs showed a technical skill somewhat lacking in the work of the smaller provincial schools. I have picked out at random a few of the designs which I thought particularly interesting, but the limitations of space preclude my mentioning many other excellent examples.

Amongst the fourth- and fifth-year students the Italian Embassy by Mr. J. C. Shepheard, which won the Tite prize in 1923, is a skilfully handled scheme for a difficult sloping site.

A stadium, by Mr. H. John Harrison, the winning design for the Victory Scholarship, is a fine solution of this difficult problem. The plan is straightforward and economical, and the elevations are characteristic of the type of building required. Unfortunately the draughtsmanship and rendering are inadequate.

A town-planning scheme for an exhibition in Hyde Park, by Miss Chambers, shows that she can handle with considerable skill the difficult and complicated problem of town planning. Her treatment of the main roads and pathways is very effective. Unfortunately the position of the concert hall would block the view of the composition from the entrance avenue; this feature would have looked more convincing if it had been placed at the head of the main axis. A similar error has been committed at the Wembley Exhibition, where the Lloyds Bank pavilion entirely blocks the vista and spoils what might have been a magnificent approach to the Stadium from the entrance to the grounds. Amongst other good examples of her skill Miss Chambers showed a design for a town house, and an excellent study of a recreation centre, in which the façade is unworthy of the plan.

Mr. Thompson exhibited an elevation of a building for fine arts treated in a simple modern manner, with a well-balanced division of its masses. He is evidently somewhat influenced by the modern Dutch school.

Mr. Hislop's plan for a recreation centre, which was the programme for the Rome Scholarship in 1923, is direct and broadly handled, but his modern treatment of the elevation is not entirely successful. The large dining hall is insufficiently lit and would be improved by the omission of the small vaulted corridor in the front.

Attractive coloured treatments of a council chamber were shown by the Hon. H. A. Pakington and Mr. R. F. Enthoven. Mr. Enthoven is a host in himself, and his work occupied the whole side of one room and part of the staircase landing; he is evidently a very versatile and competent student. One of his plans, that of a headland hotel, is well adapted to the irregular site, but I would like to have seen how he has arranged his bedroom floors. The elevation is modern in character and well grouped, and the difference of levels has been considered with good effect. He also exhibited a charabanc station, and a charming little bungalow scheme. His Hyde Park exhibition plan is perhaps the least successful of his works, which included some good archæological studies.

Captain Lyle exhibited some charming rough sketches of a house on an irregular site treated in a most original and attractive manner.

Miss Sleigh's plan for a headland hotel has many good qualities, but the elevation is too massive and severe for the character required.

Mr. D. H. Beaty Pownall and M. F. Napolitano, both third-year students, showed spirited and imaginative designs for a doorway in a natural history museum.

Amongst the first-year students, Mr. E. Wamsby Lewis and Mr. E. J. Carter have produced some well-drawn archæological drawings of the Temple of Vesta and the order of Erectheon. A number of drawings of constructional details show that this branch is not neglected at the Architectural Association. As well as those I have mentioned there were many other designs of considerable merit exhibited by this School, which deserves congratulations for the excellent results it has obtained during the last few years.

THE LIVERPOOL SCHOOL.—In Rooms Nos. 8 and 9 were to be found many interesting examples of the work produced at Liverpool University, and if these appear to favour more academic lines than those of the Architectural Association the collection exhibited is amply sufficient to show the thoroughness of the architect's training in all branches of theoretical knowledge. To mention a few of the best examples:—

Mr. A. L. Gabb exhibited some well-executed drawings for a proposed repertory theatre in Cairo, showing a carefully elaborated scheme but devoid of special local characteristics, the building being of a type which might be designed anywhere.

"M.C.L." sent a rather ambitious plan for a recreation centre; dancing is not suggested by a mosaic floor in the main hall, and it would be unsuitable for a concert auditorium, as a view of the orchestra could not be obtained from the extremities of the room. The elevation is complicated and badly proportioned, and the arrangement of the terraces is faulty.

Mr. H. S. Silcock's design for a dining room on a "White Star" liner contains too many *motifs* and the scale is too small. The depressed arches are unsuitable for a ship, and the entire design would be improved by considerable simplification.

Mr. S. L. Bridgwater's plan of a fine art exhibition in South America is straightforward, but marred by the introduction of numerous unnecessary columns. His elevation is not of the same quality as his plan.

Mr. W. Dougill exhibited a well-arranged plan for a Royal Academy in the Beaux-Arts manner, also a carefully-drawn scheme for a city bank on American lines, somewhat unsuitable to this country, where more working space is required for the staff, the strong rooms being placed in the basement.

Mr. Stephen Welsh's drawings of a library over an open loggia in an Italian garden is an admirable study in the Italian Renaissance manner.

Mr. Richard Mique showed a beautifully-drawn and rendered elevation and section of the Belvedere-Petit Trianon, and Mr. C. C. Shaw's Carnavalet Museum is equally well done.

Some charming holiday pencil sketches of well-known streets and buildings were exhibited by Mr. Max Fry.

The details, both exterior and interior, of a ball room somewhat in the late eighteenth-century manner, designed by Mr. H. C. Bradshaw, are beautifully proportioned and full of charm, and these drawings were among the most interesting exhibits of the Liverpool School.

A fine specimen of draughtsmanship, in the Archæological Section, was to be seen in Mr. R. G. Heal's drawing of the Temple of Mars Ultor from the restoration by Mr. Chaussemiche.

The School of Architecture, designed by

Professor C. H. Reilly, is a noble building represented by a fine perspective drawing by Mr. H. C. Bradshaw.

LONDON UNIVERSITY.—Generally speaking, the work produced by the London University students is of a very high standard, and under the able guidance of Professor Richardson and Mr. Corfiato we may be led to expect even more excellent results in the future. Already many of the schemes sent in by this University show remarkable ability—for instance, the design for a school of architecture by Mr. F. S. Bardell is a fine plan, well grouped, if somewhat lacking in modern expression. Each department is in its place, and the entire composition is compact and easy to read.

Mr. Forster's plan for the same programme was also interesting. He has taken the *parti* of planning his studios around a closed court-yard on one side of the main composition. The handling of the motives is rather weak, and the planning shows a lack of knowledge of modern construction.

Mr. J. R. Alabaster and Mr. C. H. Short both showed some clever little studies of a dairy farm.

The design for swimming baths, by Miss Elsie Rogers, is based on a semi-circular plan with a simple and interesting elevation.

MANCHESTER SCHOOL.—Among the exhibits of this progressive school I noticed some carefully-drawn archæological details and two excellent studies of monumental doorways in the Italian manner. A design for a railway station by Miss Elsie Rogers deserves scrutiny. The plan is simple and straightforward, but the difficult problem of harmonising the stone elevation with the great metal vault of the concourse behind has not been solved in a convincing manner.

GLASGOW SCHOOL.—The Glasgow School has shown some good classical studies, together with designs in architectural composition, which are somewhat weak in expression. The plan for a Parliament building has merit, but is marred by its unpleasant colouring.

ROYAL ACADEMY SCHOOL.—In the room devoted to the work of the Royal Academy School of Architecture were some delightful water colour sketches and a municipal theatre design by Mr. Cyril A. Farey, together with a study for a Propylæum in Greek Doric, well proportioned and of good draughtsmanship.

Owing to the lack of space at my disposal, I cannot deal with the work of the smaller schools of the provinces and Dominions, but in the rooms allocated to their work there were many drawings worthy of examination, and I am sure that an hour spent at Devonshire House amply repaid the visitor and surely proved that the education of the young provincial architect is in very competent hands.

BOOK REVIEW

Architecture Series of Measured Details. Drawn by WALTER MCQUADE. (London: B. T. Batsford, Ltd., and Charles Scribner & Sons, New York.)

This is a portfolio of twenty-four large plates of details of modern American architecture, drawn to scales ranging from ¼ in. to 3 in. to the foot, and having on each plate photographs of the work as seen as a whole. They represent work of renaissance character, and include examples from the New York City Hall, the Municipal Building at Hartford, a public library at Montclair, and from houses at Albany, Louisville and Long Island. The details are chosen from external colonnades, doors, doorways, windows, mantelpieces, &c., and together form an excellent collection of modern American work, though we could wish to have seen included among them some examples of the productions of Thomas Hastings, Charles F. McKim, or Richard Morris Hunt.

Books Received.

ERICH MENDELSOHN. Translated from the German by Herman George Scheffauer. (London: Ernest Benn, Ltd.) Price 21s. net.

A BOOK OF DESIGN. By Senior Students of the Architectural Association School. (London: Ernest Benn, Ltd.) Price 21s. net.

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ILLUSTRATIONS

Church of St. Helen.

The Church of St. Helen, of which Mr. W. D. Caröe, M.A., F.R.I.B.A., is the architect, is from this year's exhibit at the Royal Academy.

Rest Houses, Halstead.

These rest houses, twenty in number, have been erected on the site of the old workhouse and infirmary in North-street, Halstead. They are arranged in five blocks with four houses in each block. In the middle of the centre block is a fine oak-panelled room, to be used as a common room or room for trustees meetings. The view is taken looking along the terrace in front of the centre block and shows the bay window of the common room. The different blocks are connected by timbered porches or garden houses, and there is also a timbered garden house at the end of the blocks nearest the road.

The contractor was Mr. C. Deaves, of Bures, Suffolk; the facing bricks are 2 in. Tudor bricks, supplied by Messrs. Ames & Finnis, of 37 & 38, Strand, W.C. 2, who also supplied the roofing tiles and carried out the tiling.

The architect is Mr. E. W. Coldwell, Lic. R.I.B.A., of the firm of Messrs. Coldwell, Coldwell & Courtauld, 83, Pall-mall, S.W. 1.

St. Andrew's Church, Sudbury.

The original intention was to carry the main roof upon wooden posts, after the manner of St. Mary's Hall, Chichester, or the Town Hall, York, but light stone and brick arcades have been substituted as being more ecclesiastical in effect, and perhaps more permanent. The original design is not abandoned without regret. The accommodation is by no means cramped, and there is plenty of space about the entries, yet it is believed the cost will be well within £20 per sitting inclusive, not including an organ. During last year a vicarage was built at an inclusive cost of under £2,000, and as the parish hall already exists the erection of the church will complete the equipment of the parish.

The architect is Mr. Chas. Waymouth, F.R.I.B.A., of 104, High Holborn, W.C. 1.

Royal East Sussex Hospital, Hastings.

The general contractors are Messrs. Peerless, Dennis & Co., Grove-road, Eastbourne; sanitary fittings, Messrs. Pontifex & Co., Shoe-lane; electric fittings, Mr. F. J. Wordley, St. Leonards; heating and hot water, Mr. Mathew Holt, Wigmore-street, London; lift, Messrs. Pickerings, Ltd., Stockton-on-Tees; windows, Messrs. Crittalls; operating theatre, Messrs. The Sclaters Sterilisers. The cost was about £80,000. The architect is Mr. John Saxon Snell, F.R.I.B.A.

Jarvis Studentship.

We illustrate this week the selected design, by Mr. M. A. Sisson (London University School of Architecture), for the Jarvis Studentship. The designs submitted are on view at the R.I.B.A. Galleries until August 15. The Scholarship in Architecture has not Rome been awarded this year.

A WREN MEMORIAL

LAST Friday the Earl of Crawford unveiled in St. Paul's Cathedral a tablet to Sir Christopher Wren, presented by American architects. The plaque which the Dean and Chapter have received is of bronze, the border representing a wreath of golden rod and oak leaves entwined. The gift of the Architectural League of New York, it bears this inscription, "In recognition of the inspiration and enduring influence upon American architecture of the work of Sir Christopher Wren, this tablet is inscribed by the Architectural League of New York."

The service of dedication was conducted by Dean Inge, assisted by Canon Alexander and Canon Newbolt.

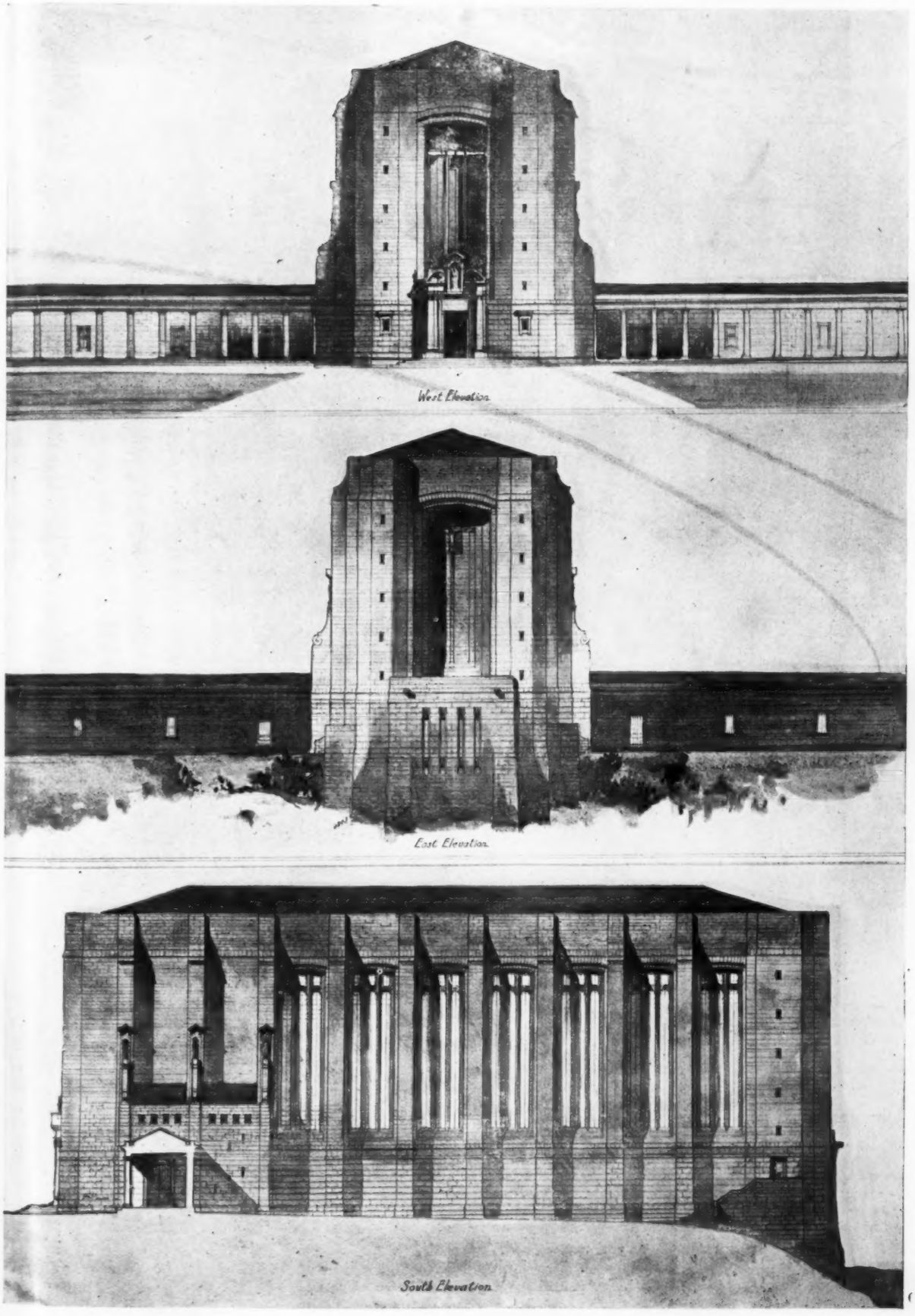
The Earl of Crawford, in unveiling the memorial and committing it to the charge of the Dean and Chapter, said it was a testimony to the strength and vitality of Sir Christopher Wren's influence, and though they recalled the famous admonition against a memorial of his achievement, and the plea that his work, rather than his personality, should carry his recollection onwards to future generations, they might direct their minds to his memory on this spot where "Thro' the long-drawn aisles and fretted vaults, the pealing anthems raise the note of praise."

To-day they stood beside the very heart-pulse of the throbbing life of this great city, continued Lord Crawford. In imagination, let them carry back their minds to this same city in the days when the genius of Wren walked its streets. He knew the city decimated by plague, shattered by death, devastated by fire, and from the ashes of its despair he raised this giant monument to the hope of immortality. Many generations had passed through the life of the Cathedral, each adding its tribute of praise, yet their words were but rippling waves passing over the unfathomable depth of his greatness. Indeed, so great a master was he that one might almost say of him as was said of the Greatest of all and His followers, "He went before, and they were amazed, and as they followed they were afraid." In that dark hour of their history the genius of Wren took wing, hovering like some great spirit over the scene of desolation, surveying its ruins, and conceiving its massive reconstruction. Creation followed creation, each excelling its neighbour in strength and grandeur, in grace and fidelity. So their city of death became the envy of the world of architecture.

Among those present at the ceremony were Mr. Alfred C. Bossom (Chairman of the Foreign Activities Committee of the Architectural League of New York), Mr. J. A. Gotch (President, Royal Institute of British Architects), Sir Brumwell Thomas, Sir George Frampton, Sir Mark Short, Mr. Mervyn McCartney, the Hon. Walter Scott, Sir William Berry, Viscountess Maitland, Lady Frederick Lewis, and Dame Clara Butt.

Plymouth Housing.

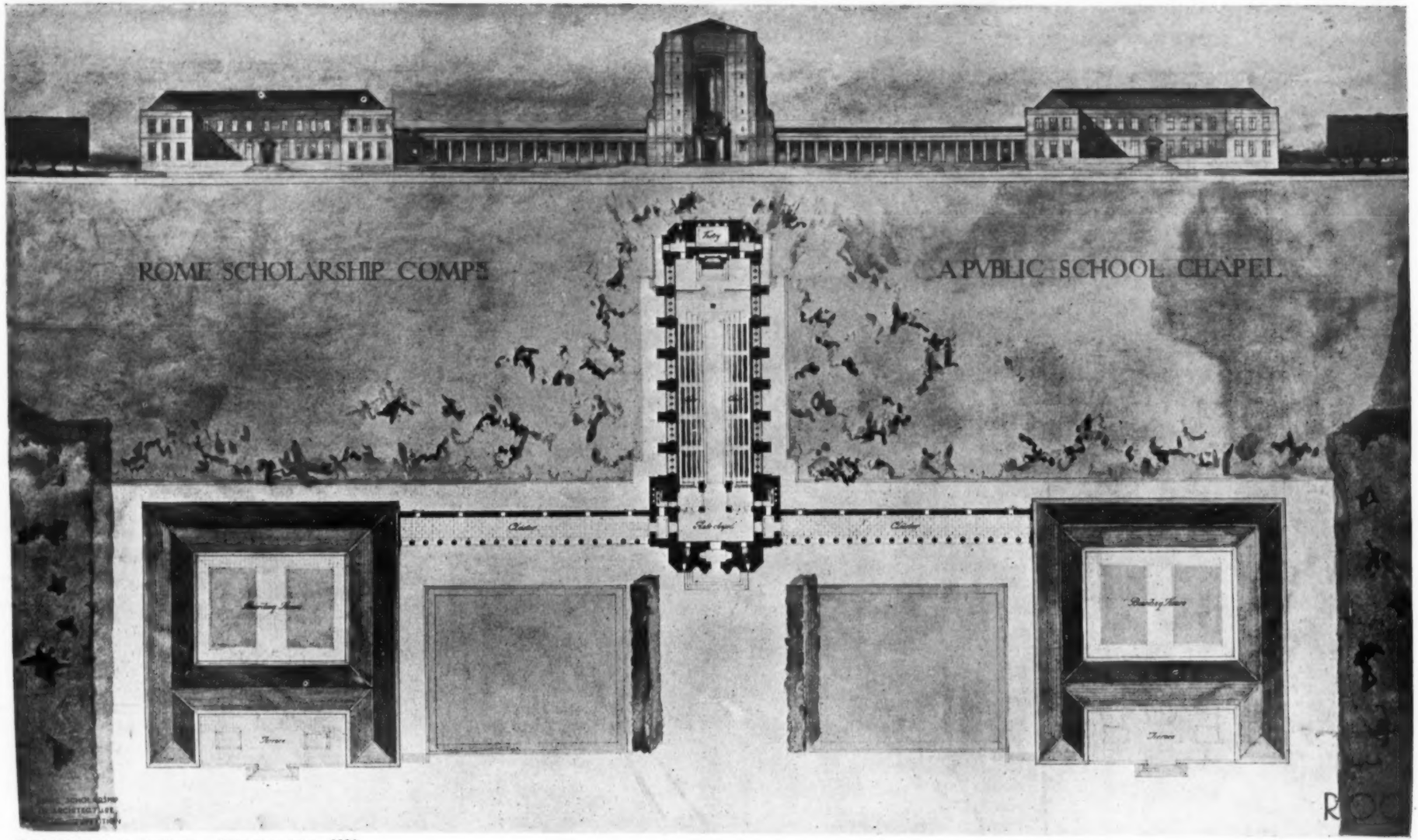
Negotiations were completed recently for the purchase of the Randwick Park estate of 36 acres. It is to be developed for building purposes, and the intention is to erect upon it houses of the semi-detached villa type, with large gardens.



Rome Scholarship in Architecture: Final Competition, 1924.

Design for a Public School Chapel.

Jarvis Studentship: Accepted Design. BY MR. M. A. SISSON.



Rome Scholarship in Architecture: Final Competition, 1924.

Jarvis Studentship: Accepted Design. By Mr. M. A. Sisson (London University School of Architecture).

Architectural
Library

R.A. Exhibition, 1924.

Mr. E. W. Coldwell, Lic.R.I.B.A., Architect.

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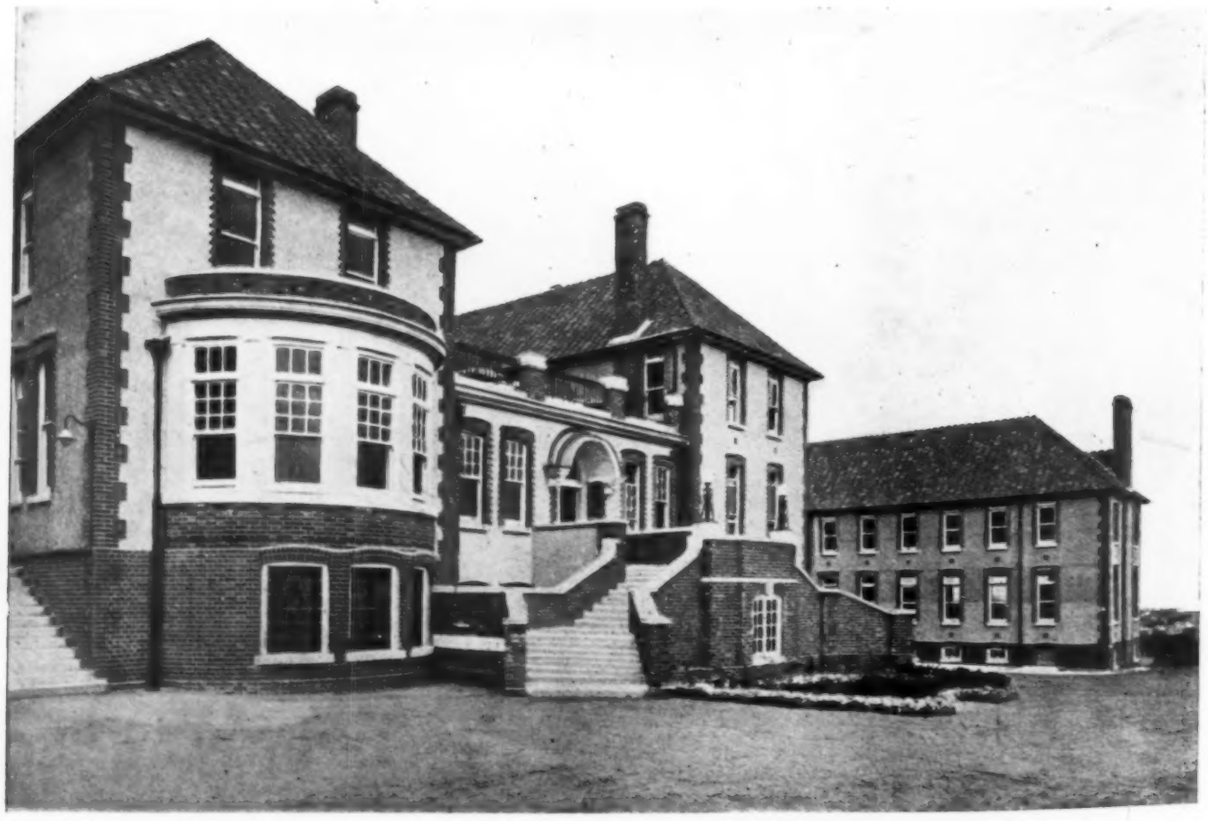
Hastings Hospital: The Chapel. MR. C. G. HARE (Messrs. Bodley & Hare), Architect.



Hastings Hospital. MESSRS. J. S. SNELL AND S. N. SPOOR, FF.R.I.B.A., Architects.

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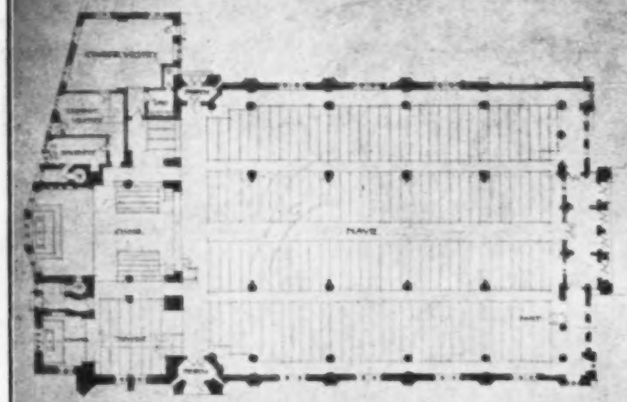
NEW CHURCH OF S. HELEN: ST. HELENS. LANCASHIRE



PLAN.

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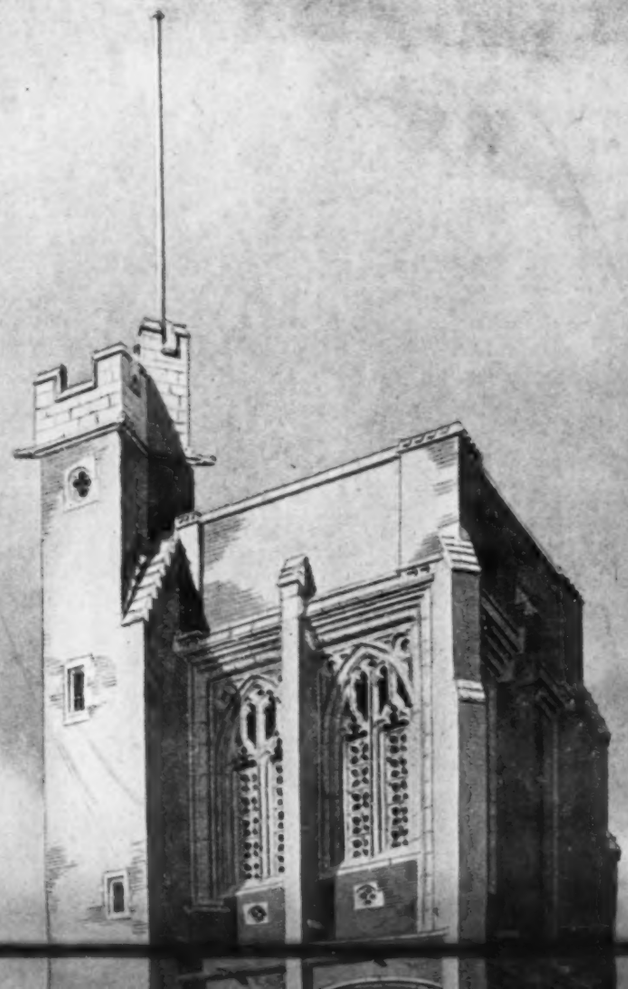

R.A. Exhibition, 1924.

Mr. W. D. Caröe, M.A., F.R.I.B.A., Architect.

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Hastings Hospital. MESSRS. J. S. SNELL AND S. N. SPOOR, FF.R.I.B.A., Architects.

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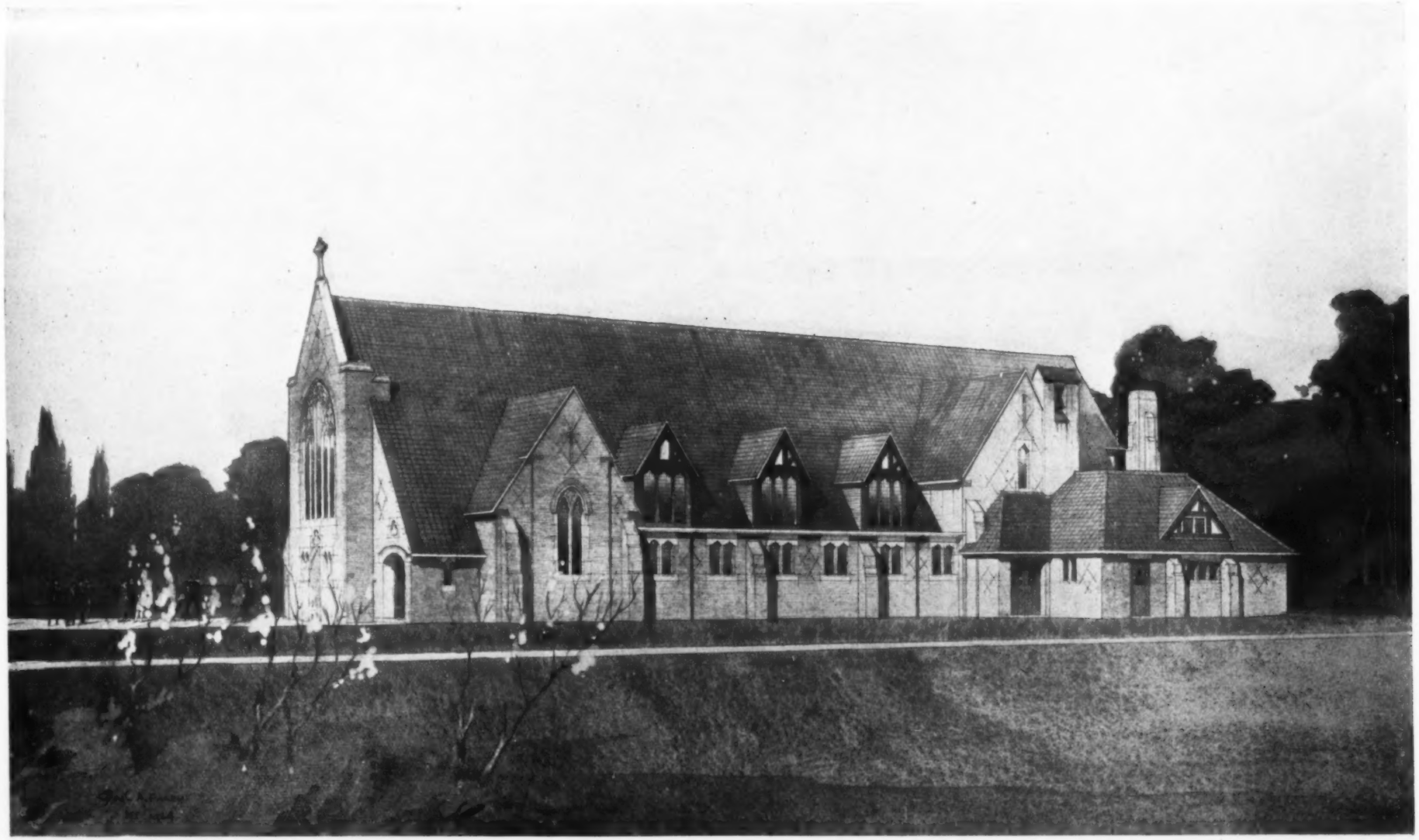

R.A. Exhibition, 1924.

St. Andrew's Church, Sudbury, Middlesex. Mr. W. Charles Waymouth, F.R.I.B.A., Architect.

Architectural
Library

Marble Pavement at Liverpool Cathedral. SIR G. GILBERT SCOTT, R.A., Architect.

Marble pavements at Liverpool Cathedral are carried over the public space, north transept, south transept, choir, choir aisles, and chapter house. Hopton Wood stone and Belgian bird's-eye fossil marble are used. Sienna marble is used in banding-up the panels, and was specially picked so that the maximum of warmth and colour was obtained with the minimum of black pencil figure. Rosso antico is used in the pavement to the Chapter House. Marble inlay is used in the form of two inlaid devices in the altar platform of the Memorial Chapel, and one in the pavement of the Choir. The marbles used in the inlays include seravezza statuary, rosso antico and sienna, caroline and Tunel rubane, blood-red [sky-ros, Hopton] Wood and bird's-eye from England.

These floors were executed by Messrs. John Stubbs & Sons, of Liverpool.

WESTMINSTER ABBEY RE-EXAMINED—VI.

By W. R. LETHABY.

THE CONFESSOR'S CHURCH.

[1.—EXISTING REMAINS.—The Monastery at Westminster was founded by King Edgar. It is possible that there had been some small church on the site before, but the evidence for this is very doubtful. Dean Robinson writes in "The Times of St. Dunstan" (1913), "After Edway's death in 957, the kingdoms were reunited under Edgar, and Dunstan became Archbishop of Canterbury. The monastic movement now went forward rapidly." At Westminster were many precious relics which were said to be the gift of King Athelstan. "Now it was not until Athelstan had been in his grave for twenty years that Dunstan took Westminster in hand, and brought monks, probably from Glastonbury, to dwell there. Till then there was but a small church there of no significance. Dunstan himself is not among the donors of relics . . . but it is possible that he had part of King Athelstan's treasury of relics at his disposal, and may have given some of the items mentioned in his old master's name."

In the first half of the thirteenth century, Abbot Barking gave some hangings for the Choir on which the life of Christ was figured, and also the story of St. Edward. The last subject of the latter represented the founders of the Abbey. In a copy of the inscriptions (seventeenth century), the writer says, "The ffounders names of Westminster were theis: King Edgare, King Edward, and ye Archbishope Dunstane." This information he doubtless found on the tapestry itself, and it gives the early thirteenth-century tradition.

Edward the Confessor rebuilt the church in emulation of the great monastic buildings of Normandy. In *Gleanings*, Sir G. Scott discussed a description of the church—given in a "Life" of the Confessor, written not later than 1070—and its relation with the existing "Norman" buildings. He came to the conclusion that the scale of the plan was much the same as that of the existing church, but that the Confessor only built the eastern part including the crossing and transepts. In 1866, Scott found the bases of some piers of early Norman form, under the mosaic floor of the Presbytery, which, as he saw, could only be actual remnants of the Confessor's Church. In 1894, Micklethwaite planned these piers in their relation to the existing "Norman" buildings, and set out a tentative reconstruction of the whole church.

In 1906 I suggested that, if we seek for a direct prototype, it is probable that we should look to Jumièges, a famous church, founded by Robert, who became Archbishop of Canterbury. Like Jumièges, its prototype, Westminster probably had an effective triforium story. In a letter written to the Pope to obtain Edward's canonisation, in 1165, it is described as a noble building, which the King had *beatissima consummavit*. A spurious charter of later days mentions Godwin Great-syd as having been the master-mason (*cementarius*). I accepted the view that the Confessor had not completed the church.

In November, 1909, I published a short study of the Confessor's Church (*Journal*, R.I.B.A.), following an account of excavations at Jumièges in *Bulletin Monumental*, July, 1909. This is now given in a condensed form.

"The stumps of the piers of the Confessor's Church have convinced me that they were probably parts of wall-piers once attached to a closed-in presbytery. They consisted of pilaster-strips with bold half-rounds in front; although in themselves they might have belonged to isolated piers, it is almost impossible to imagine the chance which should have led to just these members surviving while the rest of such isolated piers were entirely grubbed up. Of the two piers on the north side, being the first and second from the crossing, the second is different in having to the *west* an additional member, so that it projects forward or south about a foot in front of the other pier. These facts can best be explained by supposing that the second pier represents the respond of an apse terminating a closed presbytery. (Fig. 1.) The force of the evidence will be appreciated by comparing it with the plan of Cerisy, and the prototype of Cerisy was Jumièges. According to this reading

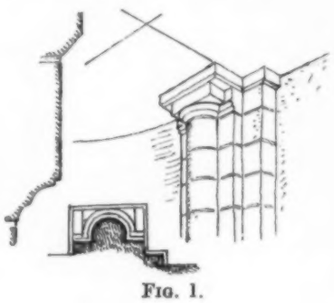

FIG. 1.

the bays of the Confessor's Church would have been about 17½ ft. wide, and the site of the altar would not have been moved by Henry III. The old presbytery would then have been of the normal two-bayed type found in early Norman churches. Thus, too, the site of the old altar conditioned the short presbytery of the present church, an extraordinary feature which has never been explained. The plan so obtained coincides perfectly with that of Jumièges. The word *ambitus* in the description of the church referred to the aisles [and not as had been supposed, to an ambulatory round the apse. See below]. In the Jumièges type they were continued even across the ends of the transepts. The ambulatory plan did not reach Normandy till about 1070 and England about 1080. The form of the piers and the profile of the bases bear out the evidence of the plan; the base made only of two hollows, is found at Caen, and it is *the* base at Jumièges. The facts gathered up show that Westminster was a copy of Jumièges."

In February, 1910, Dr. Armitage Robinson, then Dean of Westminster, read a paper before the Antiquaries, in which he gave the results of a visit to Jumièges. From measurements taken there he prepared a restored plan of the Confessor's Church. "It appeared certain that at Jumièges the original presbytery consisted of

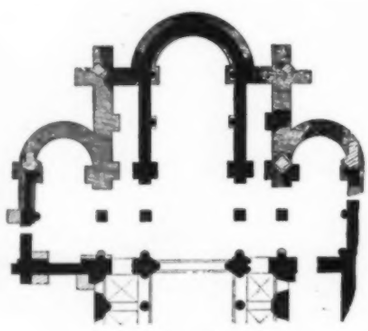

FIG. 2.

two bays and an apse." A little before this time M. Roger Martin du Gard published a monograph on the Norman Abbey, giving the result of recent excavations. From this my Fig. 2 is taken. Dr. Robinson, in his paper, analysed all known written sources regarding the Confessor's Church and came to the conclusion that it had been completed before King Edward's death, although in the eleventh-century description the older Saxon church is said to have been left standing to the west.

After Dean Robinson had read his paper I suggested that a search might be made for the foundations of the Confessor's apse under a disturbed piece of pavement just behind the present altar screen. I had observed that "of the two stumps of piers on the north side, the more eastward one had an additional break on its western face and projected further, so that the space between the eastern piers on opposite sides must have been 2 ft. 6 in. less than the space between the piers further west. It seems obvious that the pier to the east must have been one of the responds to the arch opening to the apse, and a comparison with a series of early Norman plans fully confirmed this view." (Fig. 1.)

In searching for the apse we found that under the mosaic floor the ground had been made up for several feet by a filling of stone chips from a mason's yard; at a depth of 5½ ft. "we reached the flat surface of a hard mass following a concave curve. We now dug deeper along the curved front of this hard mass and found that it was a foundation-wall of concreted rubble largely of flints. The upper surface of what

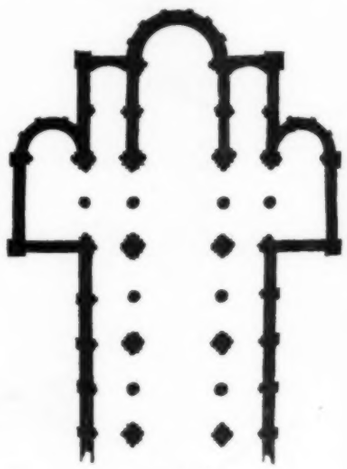

FIG. 3.

remained was in part covered with broken Roman tiles. A total depth of 7 ft. 8 in. was reached and here we seemed to come to undisturbed sandy loam. The foundation must have projected about 1 ft. 6 in. from the surface of the apse wall. In digging the hole several large pieces of Roman tiles (bricks) were found, also one fragment of a Roman roof tile with flanged sides, and some lumps of a floor of *opus signinum*—that is, of mortar and broken tiles about 3 in. thick. It is evident that there must once have been an important Roman building on the site" ("Archæologia," Vol. 62).

Since this plan of Westminster (Fig. 3) was established other churches of similar form have been explored. Mr. Bilson described the plan of the early Norman church built at Lincoln in "Archæologia," XLII. The presbytery with its aisles was of the same form, but a bay longer, and the apse was narrower, as at Westminster; the aisles ran on past the transepts, as at Jumièges and Bayeux (see an original plan by Blouet in the Print Room at South Kensington Museum), and probably at Westminster. Quite recently the foundations of an eleventh-century Norman church of the type have been excavated at Wenlock (Fig. 4, based on "Archæologia").

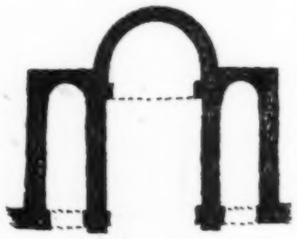

FIG. 4.

DESCRIPTION.—The eleventh-century description of the church contained in the *Life* of the Confessor was first printed by Camden "from an ancient manuscript." Wren put it into English thus:—

"The principal area or nave of the church, being raised high, and vaulted with square and uniform ribs, is turned circular to the east; this on each side is strongly fortified with a double vaulting of the aisles in two stories, with their pillars and arches; the cross building contrived to contain the choir in the middle, and the better to support the lofty tower, rose with a plainer and lower vaulting, which tower, then spreading with artificial winding stairs, was continued with plain walls to its timber roof, which was well covered with lead."

In Howel's "Londonopolis," 1657, I have found a version earlier than Wren's, given from "an old manuscript book," doubtless through Camden: "The principal plot or ground-work of the building was supported with most lofty arches, cast round with four-square work, and semblable joints. But the compass of the whole, with a double arch of stone on both sides, is enclosed with jointed work, firmly knit and united together, every way. Moreover, the cross of the church, which was to compass the mid quire of those that chaunted unto the Lord, and with a two-fold supportance, that it had on either side to uphold and bear the lofty top of the tower in the midst, simply riseth at first with a low and strong arch; then mounts with it higher, with many winding stairs, artificially ascending with a number of steps. But afterwards with a single wall, it reacheth up to the roof of timber, well and surely covered with lead."

When the "Life" of the Confessor was edited in the Rolls' series, it was found that the description of the church in the MS. used differed a little from that given by Camden. Camden's began, "*Principalis domus area*"; the other had "*aræ*." The new text also had an additional passage.

The passage in the "Life" has often been printed and analysed—most fully in Dean Robinson's paper in *Archæologia*. I am quite incompetent to deal with it as a whole, so I only print here the first part as a necessary key to what follows: (1) Principalis aræ domus altissimus erecta fornicibus quadrato opere parique commissura circumvolvitur; (2) ambitus autem ipsius ædis duplici lapidum arcu exutroque latere hinc et inde fortiter solidata operis compage clauditur; (3) porro crux templi. . . .

This has been interpreted in several quite different ways, but there is general agreement as to the latter part not given here.

The new text was printed in *Gleanings* (1863), and the editor (J. H. Parker) observed of it: "*Domus aræ*, literally the house of the Altar, obviously means the choir, whereas Wren had taken it for the area or nave. From other passages it is clear that the Choir was the only part finished at the time of the dedication." (The text mentions the cross and the central tower over the *Choir*, and hence Parker must have used this word to include the transepts and crossing.)

In 1894 Mr. Micklethwaite adopted this interpretation in a version which otherwise closely followed Wren's. I give his opening sentences corresponding to the part of the text printed above: "The main building is rounded and built with very high and uniform arches of ashlar work, and the aisle enclosing that part is strongly vaulted with a double arch of stone springing from either side, right and left. Then the cross of the church . . . ."

In 1909 the late Mr. Francis Bond objected that it was a mistake to imagine that *arcus* meant "a vault," and *fornix* "an arch." "The meaning of the words, *principalis aræ domus altissimus erecta fornicibus circumvolvitur* is that the sanctuary (home of the high altar) is built with vaults very high and is surrounded by them." These vaults, he goes on to say, can only have been those of the ambulatory, for there were no high vaults in 1050.

Micklethwaite supposed that the arches or vaults in question must be those of the main building (Parker's *Choir*), and that, therefore, they could be no other than the four great arches under the Lantern tower, which, as all agree, surmounted the crossing of the church.

Dean Robinson, in 1910, followed Mr. Bond in making the description begin with the presbytery, but he claimed that "the very high vaults" must be those of the presbytery and the apse. It had now been discovered that, at Westminster, there had been no ambulatory around the apse, such as Mr. Bond assumed. I copy here this latest translation in full:—

"The sanctuary of the high altar rises up with very high vaults; it is made with squared stones and even jointing, and is brought round in a curve.

"But the main church is compassed about with a double stone arching on both sides, and is closed in, this way and that, by solid work of strong construction.

"Then the crossing, which is to contain in the middle the choir of those who sing God's praises, and with its two-fold abutment on either side to steady the lofty summit of the tower in the middle, rises simply at first with a low and sturdy vault, swells with many a winding stair of elaborate artifice, but then, with a simple wall, reaches the wooden roof, which is carefully covered with lead. Above and below projecting chapels are arranged, to be consecrated by their altars to the commemoration of apostles, martyrs, confessors, and virgins.

"Now the whole of this vast and elaborate work was started so far east of the ancient church that the brethren of the place might not have to cease in the meantime from the service of Christ, and also that some part of the porch which was to be set in between might have room to follow on."

What does the opening phrase of the description refer to—the highest and most characteristic part of the whole structure, as Parker and Micklethwaite supposed, or to the eastern limb of the building?

I am incompetent to deal with the question and should not pretend to do so were it not for fresh evidence. This I find in what Enlart tells us of early churches in France: "At times a lantern tower giving light to the church surmounted the crossing; it may have been a Gaulish version of a central dome. It was called *turris*, *domus altaris*, or *domus aræ*, the altar being placed below; the tower had a pointed roof, *turritus apex*." ("Manuel," vol. 1, p. 118). See also "*Cabrol* under *Domus*."

The lantern-tower of a Romanesque cruciform church, like a Byzantine Dome, rose over the centre of the structure, having windows through which much of the light was derived. Wilfrid's Church at Hexham is described as a round *tower* with four projections surrounding it. The late Saxon church at Durham had two towers, one of which contained the choir. The Saxon church at Ramsey also had two towers—one being central. The characteristic feature of the Saxon cathedral at Winchester was "a lofty *temple* full of light—a sparkling tower reflecting the rising sun." The picture in the "Benedictional of St. Ethelwold" shows clearly that the church had a tall central tower as well as a second one, which was doubtless at the west end.

The lantern, with its windows, is here identified with the temple or main structure, just as in the Westminster description it represents the *domus*. The same general idea seems to be followed in a description of the Saxon cathedral at York, about 970, also given by Willis.

"A wondrous basilica was completed. This house of appropriate altitude is supported by solid columns set under curved arches . . . within its beauty shines environed with many aisles (or apsidal chapels). It has a great number of apartments, which contain thirty altars."

This leads off naturally as, I suppose, the Westminster account does, with the height of the "house," and, in fact, it might be the model for the Westminster description. Of Lanfranc's Church at Canterbury, we are told, although it had a long nave, "the tower, raised upon great pillars, is placed in the midst of the church like the centre of a circle. . . . A gilded corona hangs in the midst of the church."

The relation of Domus, Dome, and Lantern-tower is well brought out in Walcott's "Sacred Archæology." "*Dome*: A cupola, probably so called as being the distinguishing ornament of the cathedral; the Italian *Duomo*, the German *Dom*, and Latin *Domus dei*, God's house, the *Dominicum* of St. Jerome. . . . It became the lantern of English Gothic art, but is closely approached in the superb lantern at Ely." "*Lantern*: An open central tower, as at Ely, Coutances, Lisieux, Evereux, Lincoln and York, for showering down light on the choir and rood. On festivals an immense lamp was suspended from the vault of the tower at Beauvais and was visible at great distances at night—a beacon that could not be hid."

It is curious that Howel, who was quoted above, uses the word "dome" for Old St. Paul's and also for Westminster Abbey.

John Carter, a century ago, noted of lantern towers: "There is a part of our antiquities which seems to have escaped general observation—the interiors of central towers. Hiding them by ceilings seems to have been first resorted to, temp. Henry VI and Henry VII, and many fine groined ceilings were then set up, as at Canterbury, Gloucester and Wells. The central tower at Durham, still open, is the diadem of masonic power." The name Lantern-tower occurs in the Rites of Durham, and in the Will of Henry VII it is used for Westminster.

We are now better prepared to understand what the writer of the *Life* must have meant by the opening words of his description. We should note first of all that there were no other introductory phrases dealing with the main building. The account begins by saying that the King rebuilt the monastery not far from the walls of London and then at once proceeded as above quoted. I venture now by comparing the several versions, and with the help of a dictionary, to put down what I suppose the writer must have meant.

The House of the High Altar (sacred structure, or, as below, "temple") is raised extremely high with vaults (or broad arches) of squared work closely jointed (round about the four sides of the central space). The edifice is also enclosed on both sides by double arches of wrought stone, solid and strong. Moreover, the cross (or transept) of the temple, which contains in its midst the choir of those who sing to God, with twin supports from each side, upholds the lofty middle tower: first (on either side) it has a low and strong vault, then rises with many winding stairs artfully ascending and continues with a simple wall up to the wooden roof, which is well covered with lead. Below and above chapels are thrown out to be consecrated by their altars to the memories of apostles, martyrs, confessors and virgins. All this vast and complex work was planned far to the east of the old temple that the brethren need not cease from the service of Christ, and so that a sufficiently spacious vestibule might be placed between them.

The great arches of the crossing under the lantern would have been six or eight feet broad on the soffit, and an untechnical writer even now might be confused in describing them as to the precise use of the words "arches" and "vaults." As the word *fornicibus* is plural, Dean Robinson explained it as applying to high vaults over the whole of the presbytery and its apse. If I could believe the presbytery had high vaults, then I could also think that the little transepts were also vaulted, and thus again we should be free to suppose that the description started with the main building. Apart from other considerations, the existence of high vaults at this time seems to me more unlikely than the use of the word *fornicibus* for the arches—great and high and altogether remarkable—which were about the square crossing.

Further, it is these arches or vaults which appear to be described as constructed of carefully wrought stone. Now arches would have been so built while main vaults would not. Dean Robinson alone makes this wrought masonry apply to the walls.

Again, Dr. Robinson understood the second sentence, *Ambitus autem ipsius aedis . . .*, which he rendered, "But the main church is compassed about . . ." to apply to the nave,

while the third sentence came back to the choir. Yet in a monk's church the nave hardly counted, while the choir was essential.

Besides describing the Confessor's work at Westminster, I want to bring out the thoughts which conditioned the design of our ancient churches. The dominating position in every way of the central tower and its parallelism with the eastern dome has hardly been realised. It was much more than a handsome feature in "a design." In some of our smaller Saxon churches the body of the work is a tower with a projection for the altar at one end and a porch at the other, and these have been well named "Tower churches." It is part of the same tradition that in churches like Westminster the choir of singers is in the western limb of the building.

While speaking of Saxon cruciform churches, I may add that the foundations at Peterborough may be explained by supposing that the transepts were not wider than the nave, but had sacristies or chapels which made up the greater width found. Were not the foundations at York, which Micklethwaite supposed to be Saxon, part of Bishop Roger's work?

THE NAVE AND TOWER.—The *Life* description of the Church is usually said to have been written about 1070, but Dean Robinson pointed out that there is no reference to the Conquest and that it is quite possible it was written before the end of 1066. In any case "the writer's description does not come at the end of Edward's life, but while the work is still in progress. . . . But we may not assume from this that when he wrote the things described were only in contemplation. He is describing the process of building." Dean Robinson also pointed out that Sulcard, who wrote about 1080, said "the work that had been begun was pushed forward by the King's command, and after a few years, supported on divers columns and vaulted with manifold arches (*multiplicibus volutum hinc et inde arcubus*), being finished to the very porch (*vestibulum*), it was shown forth to the bishops for consecration." I wonder whether *vestibulum* here and in the earlier description necessarily means a western porch? I find it hard to think that the older Saxon church was still further to the west than the *completed* nave of the Confessor's church. Dean Robinson speaks of "room for the Saxon church between the Norman west front and the Long Ditch, a distance which may be reckoned as from 300 to 350 feet." If we could suppose that *vestibulum* might here stand for nave, which otherwise does not seem to be mentioned, then we might understand that a part of it was first interposed between the old church and the new, and then the former was pulled down for its completion. Sulcard, indeed, says that the old monastery "which we have all seen, was purposely destroyed that the nobler one might rise, which now we see." In Parker's "Concise Glossary," it is said that vestibule sometimes meant nave, but this meaning is not given by Ducange.

A slight confirmation of this view may be found in the fact that in the Confessor's *completed* church there was an altar dedicated to the Trinity. Now a legend told that it was at the altar of the Trinity that the Confessor saw one of his visions. This would mean in the old Saxon church, for the Confessor never entered his new church after its consecration. It seems probable, therefore, that the site of the older Trinity altar (possibly in a lateral eastern apse) was considered to be represented by a nave altar in the church built by the Confessor. The event is represented by one of the sculptures on the back of the existing altar-screen, and it there looks like a nave-altar. The Trinity altar is mentioned in 1246 as being the place where the Confessor saw as in a vision the King of the Danes drowned. (B.M. Cal. "Charter Rolls.")

Again, remains of Roman building have been found half-way down the nave, and the Saxon church is likely to have been on a Roman site, which seems to have been the highest point of very low ground.

This reading of the evidence, however, requires that the Vestibule spoken of between the Confessor's work and the old Saxon church should be understood to mean a part of the incompleted nave to the west of the Choir gates. Possibly only the actual altar and not the chapel of the Trinity was preserved.

That the Confessor built at least a considerable part of the western limb of the church is confirmed by the Bayeux embroidery on which the church is carefully represented. In a study of this work in the *Archaeological Journal*, about ten years ago, I convinced myself that it was an English work wrought to the instructions of Odo, Bishop of Bayeux, soon after the conquest for his cathedral. (Its subject was Harold's oath on the relics, and what followed, rather than the Conquest of England seen politically).*

Of several buildings indicated on the embroidery the only one which is represented with any appearance of accuracy is the Confessor's church. It is properly shown close to the palace, which lay just to the east, and it is familiarly named "the Church of St. Peter."

Five bays of the western limb of the church are shown. These, it is true, might stand for a greater number, but no completion by western towers is indicated. The view correctly represents the facts that the church was cruciform and had a tall central tower standing over high arches. The upper storeys of the tower were reached by turret stairs projecting at the angles, and above it was finished by a steep leaded roof. The western limb had arcades and upper windows, but the eastern limb, which was short, had no arcades.

All this agrees with the evidence otherwise gathered. The tower had two stages of lights, and it can not be doubted that it was a "lantern." It may be compared with the noble early lantern tower of St. Albans, and also with that of Jumièges, the parent of both.

The importance of the lantern tower at Westminster, as brought out both in this view and the old description, is confirmed by the fact that Matthew Paris, telling in the "Major

FIG. 5.

Chronicle" of the beginning of the new work of 1245, says that the eastern part of this old church was pulled down, and adds in the margin, "*cum turris.*"

Another little detail which may be gathered from the embroidery is that the church had a weathercock (Fig. 5).

It has been held hitherto that the scale of the Confessor's plan was nearly the same as that of the present church, but this may, I think, be proved to be a mistake. One piece of evidence I gave last October in showing that the south wall of Henry's III's church against the Cloister must have been built outside the older church. This is substantiated by two further facts. About ten years ago we found by an excavation in the north walk of the Cloister that the outer wall of the west walk of the Norman cloister ran for some feet under the present north walk of the cloister, and it was not traced to the angle. Again, the tombs of early Abbots seem to have been shifted under Henry III to the south walk of the cloister. I suppose [they originally lay by the wall of the church, but were displaced when it was widened.

The dimensions of the Confessor's work at Westminster, which may be stated with fair accuracy, are these: Internal width of the presbytery, 31 ft. 2 in.; its external width about 40 ft. Internal length of presbytery, comprising two bays and the apse, about 56 ft. Width of bays in presbytery at 17½ ft. The external width of the existing Dormitory range, which ran away from the south transept (and was probably of the same dimension) is 39 ft.; that is about the same as the presbytery, as might be expected. Now these agree closely with the dimensions of the similar parts at Jumièges, and we may not doubt that the two churches were closely alike in size. So we may transfer other dimensions from the Norman church to Westminster with high probability of their being correct. At Jumièges the nave was about 66½ ft. internally, and about 74 ft. externally. Dean Robinson, however, gave a width of 72 ft. to the Confessor's nave at Westminster, nearly as much as the present width, which is 73½ ft. The width of 66½ ft. seems to be the greatest known for contemporary Norman churches (see J. Bilson's "Lincoln," in *Archæologia* 62), and it may be doubted whether Westminster was so great.

Other probabilities which may be gathered by the comparison with Jumièges are that the aisles ran on past the transepts, and that the remaining parts of the north and south limbs were vaulted at the same height as the aisles. The nave had large piers and columns alternately following from the treatment at the transepts. There was an important triforium stage. The great lantern tower had two stories above the roof. The existing pier bases at Westminster are like bases at Jumièges, and some very early Norman capitals from the Dormitory windows (c. 1075) are also of a Jumièges type. In M. Roger Martin du Gard's book on Jumièges, the presbytery and transepts are dated 1040–52, and the Nave 1052–67. There is a late statement that the Confessor began his church in 1049, but this is doubtful. I noted above that the master mason was said to be one Godwin Gretsyd. The late Dr. Scott wrote to me in 1913 that "the Dean of Wells has just found him and his wife Wendelburh, in the list of people to be prayed for in Hyde Abbey at Winchester." Only the other day Mr. Westlake told me he had found a reference to "Teinfrith mine Churchwright."

These both look like Saxon names, but the records are not contemporary documents, and I cannot think that any other than a Norman master could have built this great church in a fashion new to England. The material of the existing bases seems to be Caen stone.

ST. MARGARET'S.—Until recently it has been generally accepted that this church close by the Abbey was founded by the Confessor. It has been urged, however, that such a dedication in the name of the Martyr of Antioch could hardly be earlier than the second half of the twelfth century. But the claim for the foundation by the Confessor goes back to an early time. In Bentley's "Cartulary," among fourteenth-century documents, I find the heading "Of the foundation of the parish church of St. Margaret, Westminster, by S. Edward Confessor."

The similar dedication of a church at Rochester may be cited as evidence that it was in use at an earlier time than is alleged. "The earliest mention of the church in the Rochester records is found in a charter of Bishop Gundulf, which may be assigned to the period 1107–1108. The Bishop grants to the monks the parish altar of St. Nicholas [in the nave of the Cathedral] the church of St. Margaret which is appendant thereto" (Mr. G. M. Livett in Parish Magazine). Then, further, we have the fact that an English princess, granddaughter of Edmund Ironside, and a relation of the Confessor, was named Margaret (afterwards to become St. Margaret of Scotland).

*Mr. R. S. Loomis, in the latest examination of the evidence, concludes that the embroidery was English work prepared in time for the dedication of Bayeux Cathedral in 1077. "When it reached its destination it was found to be too long. The end shows no border corresponding to the beginning. The designer presents Edward enthroned in the first scene, Harold in the middle, and evidently intended to present William enthroned at the end. An embroidery which belonged to the Conqueror's daughter, Adele, must have been planned by the designer of the Bayeux hanging. Every scene is found also at Bayeux, except the last two. It follows that these two were in the Bayeux hanging before it was cut down." (American *Art Bulletin*, Vol. VI, No. 1.)

ARCHITECTURAL EDUCATION CONFERENCE

ARCHITECTURAL EDUCATION OF THE FUTURE

On the third and last day of the Congress Mr. Cass Gilbert (United States) presided. In his opening statement he said they were going to deal that day with the architectural education of the future, and called upon Mr. F. H. Bosworth (America) to read the first paper.

AMERICA.

Dealing with the probable future trend of architectural education in America, Dean Bosworth said, knowing the parentage it should not be impossible to foretell some of the characteristics of future architectural education. Changes in system would surely come. Each country and perhaps each part of each country would have some detail peculiar to itself. In each, local conditions or local difficulties would require, as they required to-day, some modifications, some adjustments, to fit architectural education into its place as a part of a general educational system.

Of its parents, the apprentice system was the elder, at the worst a penurious and cantankerous old man, subject to no influences except economic ones, which in the end caused the death of the whole guild system of which apprentage was a part. Too often the pupil unconsciously set as his goal a faithful copying of the master. He learned his style and mannerisms, his exaggerations and idiosyncrasies, but did not grasp the essential spirit of which these idiosyncrasies were the expression. He grasped the form, not the substance; learned how to speak, but had nothing to say. At its best it was the most glorious system of education evolved by man in that it was the personal inspiration of the student by the master who taught untrammelled by any system, unhampered and free in the firing of growing imaginations by the force of great example. When practice of this nature was teacher it was a greater influence and incentive towards high accomplishment than theory ever could be, but being individualistic it had no continuity. What was good did not of necessity perpetuate itself.

The future's inheritance from the formalised teaching of the schools was perhaps less spectacular, less obviously important. Theory even at its worst sought for basic causes, was interested in the past and the principles which it might deduce from that past. That the deductions were mistaken it was true, but the spirit of research and analysis was recognised as a true foundation upon which to build. Then, too, it had continuity, a life of its own independent of the individuals who were teachers. Having continuity it was subject to influences from without. It might change but slowly, but change it did in response to that ebb and flow of students who sought for that place where education was most vital, and deserted that where the dry rot of academic theory held sway unchecked. Analysis and synthesis, creative faculty and critical faculty, the theory and practice of architecture; the one must check the other. As in logic, analysis and synthesis were not, if properly understood, separate methods, only two necessary parts of the same method. Each was the relative and corrective of the other.

Those were the traits which they would wish should be education's inheritance. From practice the knowledge that no school could teach by system alone; that teaching in fact was only possible when it was learning, an act not of the teacher but of the pupil; that books and curricula were of use only so long as they served as the crucibles in which teaching was transmuted into the precious gold of learning by the fire of imagination and enthusiasm kindled by contact with great personality. The awakening of the imagination was an act of the spirit rather than of the mind; from theory, thoroughness, a respect for scientific research, and a scientific attitude towards the problems which the future architect must face. Their premises must be based upon knowledge, not sentiment, for sentimental conclusions had no more place in artistic work than in scientific; an inheritance from both, the best from each.

That it would be so was easy to believe. They had not changed so fundamentally since the days when men travelled to Thebes or Babylon, Athens or Alexandria, from one side of the world to the other, to find that man or that place where analysis and synthesis were but two parts of one process. That the schools had come to stay was sure, for they had a continuity and a responsiveness to the educational balance of trade which would act as an ever-present corrective—a corrective which could only exist where continuity existed. The shrinking world would make that international index even more delicate, even more quick to point a way from the western continent or the eastern, the southern hemisphere or the northern, as the one or the other lost touch with life, or enmeshed in the net of practical construction again mistook the means for the end. That corrective gauge would be not only an incentive to greater effort in the schools and country towards which it pointed, but by its very avoidance of another would spur that school and country to a higher standard. The schools of his own country owed much to France. They owed also much to the fact that once their own students deserted them. The compass needle pointed south as well as north.

They could not all be on an equality; but the day would surely come when practice aided by theory would cast off the bonds of form precedent and suck from the dry bones of the past the living principles which created those forms, and theory guided by practice would take on new life and vigour in its mission of analysis of present-day needs and methods. The present no less than the past had its fetishes, its useless inhibitions.

Diminishing distances would tend to make them more alike, each country to its neighbour, each school to its rival, not in its exact system of education nor in its details, but in understanding of the basic aims of architecture, in its appreciation of architecture as a great interpretive art, an intangible language speaking in terms of the culture of the south or the east, the north or the west, but understood by all men or all times as was the story told by the Acropolis of the glory that was Athens.

ENGLAND.

On the future of architectural education in England, Mr. H. V. LANCHESTER said in looking towards the future they should in architectural education take up the same attitude as they did in the political sciences, namely, that of developing from present systems towards something that would be superior to them. Evolution was orderly and natural. Revolution, though on rare occasions the only possible road, was always expensive and uneconomical of energy.

It was impossible to formulate a scheme that would be generally applicable when they took into account the marked variation in individual capacity of those desiring to enter their ranks. Education might proceed on either of two lines. It might direct itself towards the enhancement and expansion of individual characteristics, or towards concentration on the less developed ones in order to bring those up to a definite minimum standard. It was easy to see that the first was more in harmony with nature and the world spirit, the latter being merely a regrettable necessity imposed by the social organisation of the day. In many of the arts they were free to adopt the former, and it might be possible to conceive conditions in which architecture could come into line with them, but they were not the conditions obtaining at the present time. Therefore education must effect a compromise with its highest ideals, and the task was to devise the mode of doing it with the least possible damage to the more valuable side of their work.

He was convinced that an inflexible curriculum was a mistake, and that whatever the general lines adopted might be, they should be capable of very considerable modification to meet temperamental variations in the students in order to develop the best. They had seen the inadequacy of examinations as a test of artistic capacity, and the same reasoning applied to a fixed curriculum. Theoretically, all education in the arts was at any one period a matter between one master and one student, and they had to keep that door open to the maximum extent practicable. Then, again, they had the difficulty that many sought to become architects who were incapable of achieving their aims and secure a solid position in the profession through qualifications that were valuable in connection with building, but were unrelated to architecture. He would by no means deprive them of that position, but thought it devolved on the educational system to differentiate between such qualifications and the faculty for design.

To his mind the defects of the system at present in vogue were mainly due to the steam-roller labelled "curriculum," which aimed at turning out every student with a certain uniform acquirement; of course, it could not succeeed, but in its effort to roll everyone out to an ideal pattern, a good deal of harm was done. To begin with, it disguised inherent disqualifications and thus failed to eliminate the unfit at an early stage; furthermore, it militated against the development of individuality in type, assuming that four or five valuable years might be spent by every student in similar pursuits with equal profit. The whole tendency of the age was towards specialisation, and even a single profession such as their own had become too wide in its scope for most of them to master all its ramifications, but while he regarded the form of specialisation that confined them to certain types of building as vicious, he hailed as beneficial that which made the design and conduct of building operations a co-operative effort. Possibly the school could not be expected to anticipate such a practice, but he felt that at the end of the course a differentiation in qualification should be admissible, such as "honours" in some branches and "pass" in others, giving some indication of the graduate's special faculties.

It must be clear that in the case of anyone destined for an artistic occupation some indication of aptitude would be evident at quite an early age, say, between eight and twelve, and though it was usually undesirable that studies should take a technical direction before adolescence, faculties of all kinds, especially those of observation and deduction, now too generally permitted to lapse, should be judiciously developed from the time they first appeared. Public schools had been just as wide of the mark in failing to effect this as their own professional ones, with less excuse. Educationalists are beginning to recognise it, and he hoped to see one day young people on leaving school presented with a certificate reciting what types of occupation they were likely to be capable of. It seemed quite absurd that a youth should go to the age of sixteen or eighteen without having his thoughts turned in any particular direction and should then be pitchforked into this occupation or that on grounds that were often quite inadequate.

Taking architecture as the case in point, the school tests would be ability in drawing, including imaginative aptitude, together with the capacity for grasping the science of geometry, which was bound to connote a sufficient measure

of mathematical facility. Those qualifications, or their absence, were conclusive, and were, or should be, within the curriculum of every school. A student with those credentials was not running a great risk in taking up a course in architecture, but it had yet to be discovered whether his imagination was vigorous enough to survive the discipline demanded in the technique of the subject, which was a most searching test. Original work in ornament and decoration might be carried on side by side in order to provide comparative results; they would not militate against architectural proficiency if the latter could be attained, but might offer an alternative route to imaginative design should the trammels of construction prove too stringent for the expressive faculty.

On the other hand, should the logical and scientific attitude of mind take charge it should then be possible for the school to open a route in that direction and secure a high degree of efficiency without having to tack on to it a guarantee indicating a high grade in architecture. Possibly those would be the exceptions, and the majority, if accepted only on a certificate and with the proper adaptations in the course of study, would be able to justify the adoption of architecture as their work in life, though the more searching test would come later. Much could be learnt, but those whose work would live for all time were but few.

He would like to add a few words on the place of what was termed a "liberal education" in the making of an architect. The outlook on life that such an education gave made existence mean so much more that was well worth possessing, but in view of his claim that the education of the artist must begin with his earliest years, they would naturally scent a conflict between the continuity of this and the demands of the broader studies. This continuity must not be broken, and if the artist could not secure the broader outlook through the windows of his art, he could only afford to seek it during his life with the balance of energy allowed him by his proper occupation. After all, an art was itself in great measure a liberal education, and such an education was a lifelong affair more accessible by means of an open mind towards what had been and now was than by a term of years devoted to specific studies. True education was the development of faculty to the utmost, whatever that faculty be, and only by keeping that clearly before them could they attain to the greatest results.

FRANCE.

M. Leon Jaussely (Government Architect, Professor of the "Ecole Nationale Superieure des Beaux Arts," Paris) said whatever opinion they might hold of the present evolution of architecture, it was undeniable that the evolution did exist, and that they were witnessing at present conscious or unconscious attempts to renew architectural forms and æsthetics. This renewal was more particularly noticeable in large constructions: large stores, bridges, churches, banks, cinemas, railway stations, airship sheds, &c., which they could consider as the expression of the monumental architecture of their times, and which logically should be compared with that of other epochs in order to understand the meaning of this architectural transformation.

Iron and cement and their compound—reinforced concrete—had rendered possible, owing to their elasticity and greater strength, a constantly increasing development of what must be considered the most important characteristic of modern architecture; considerable increase in horizontal spans in contrast with the reduction of thickness of the vertical supporting pillars or piers, spiritualisation of forms by the maximum utilisation of the strength of the materials. The proportions were the reverse of the former proportions.

In modern architecture, architects in general had not regarded those chief materials as noble materials, and had exercised their ingenuity to hide them when it was a question of a really architectural work. The reinforced concrete was covered with mosaics (rational) or with stone or marble facings (irrational), so that in the latter case the facing thus produced frequently gave the building the appearance of precariousness which it had not got in reality, and of bad utilisation of the apparent building materials.

The new æsthetics derived from these materials were, therefore, indicated first of all by the reversal of proportions and stressed by pronounced contrast between vertical and horizontal lines without any softening of line and form, of transition or passage from one to another. The arch had been almost completely abandoned. It might be said that these æsthetics were rather crude, arbitrary, and intentionally unpleasing. Their influence had been felt also in the architectural æsthetics of the materials formerly used, such as stone, brick, wood; horizontal lines predominated, curves were more and more avoided; opposition between vertical and horizontal was universal.

These new æsthetics were further characterised by the simplification of the membering and its reduction to a small number of elements, the search for the enveloping form and general colour, in place of detailed moulding; the decorative points were elaborate, and even precious, but very sparsely distributed and stood out from a bare background; the appreciation of volumes and masses was exact, the outlines were severe—the sobriety of these æsthetics excluded all mannerism. A new direction seemed to have been struck which could only become still more pronounced. It was a pity that constructive frankness of form is reserved chiefly to the interior parts, and that external decoration of the façades mostly did not correspond to it.

Did that new orientation demand a new teaching of architecture? It seemed that it must be so. The problems which the architect was more and more called upon to face were constructive problems of always increasing audacity, difficulty and complexity. This must lead the architect to become more and more a constructor, not in the narrow professional sense, but in the highest sense, bearing in mind that the architect must be in a position to solve architecturally any exceptional and most important constructive problems that may occur.

He could no longer be simply an artist who, as was the case still to-day, conceived merely the decoration, the clothing of the forms supplied to him by the calculations of the engineers; he must himself imagine the forms in their complete logic and rationality, construction and decoration being the product of one and the same brain. It seemed that was the capital point of the future teaching of architecture.

The beginners should be taught besides, at the very commencement of the study of architecture, to consider all the forms of the history of architecture of the great periods, Classical or Gothic, as chiefly constructive forms—which they were—and shown that the decoration merely brought them out, and that instead of covering everything the decoration was sparsely and very judiciously distributed to suit the constructive form. That was the great lesson taught by the fine periods of architecture. The evolution and the progress of architecture were in the fusion of the two spirits at present sharply distinct; the constructive spirit and the decorative spirit. Seen from that higher point of view, the teaching of the construction, that of the history of architecture and of the theory of architecture became capital points. From the first, all teaching must be directed by a study of the rationality of the forms of the past and a logical conception of modern forms.

Another important point of view in teaching was that of the conception of the building or of the construction considered as being situated in a generally harmonising environment. In teaching, attention had been chiefly given to the æsthetics of the work itself, but the pupils should be shown the value of the general harmony—natural or human—in which the buildings were to be erected, and the necessity of adapting the work to be built so as to ensure that harmony. In that sense, and without insisting on the importance of the teaching of "urbanism" from its purely technical and practical points of view, the teaching of the history of architectural urbanism was of the highest importance and should not be neglected, but should form part of the general teaching of architecture.

ITALY.

Mr. Gustavo Giovannoni also read a paper on "Architectural Education in Italy in the Future."

Italy, he said, was proceeding to carry out a conception similar to that followed by France when it founded about twenty years ago the Regional Schools by the side of the old Ecole Centrale d'Architecture in Paris. Whilst preserving organic unity of the type of instruction in such schools, it seemed advisable to allow in them a certain variety in the direction of art, both as regarded the study of the subjects (different in a centre of industry and in a centre of monuments), and the study and inspiration of the regional forms.

In Italy, in effect, in spite of a single sentiment having endured through different styles, in spite of the prevalence later of that style which, from the sixteenth century to our times, had become, with progressive transformation, a universal style in the monumental architecture and partly also in the modest private architecture, there had always remained in all the regions a special character which, by slow degrees, passed from one centre to another. It was just in this variety which logically responded to the various conditions of environment and was expressed in so many noble monuments, that was to be found one of its most interesting architectural characteristics. Also in this, therefore, the new architecture should be in accordance with the Italian formula of "renovation in the tradition," and the local sentiment should be a substratum for new manifestations.

In that way would be avoided illogical transposition of types and forms from one place to another, which transpositions represented the negation of the sound conception of "environment," that was to say, of the accord between the sentiments and the proportions of the past architecturally perpetuated and the present. In every centre with traditions of art the study could begin with the survey and exact understanding of the local monuments—not only of the noblest, but specially of the humbler ones, in which the ethnical character lived to a greater extent and the permanent elements found a simple and direct expression. When this idea would be supported by positive knowledge, the grafting on the old trunk of new plans and new forms responding to the new conditions would take place automatically and naturally by modern solutions, but harmonising with the environment, which, in Italy, was an extrinsic element dominating the intrinsic element.

The following are further abstracts from Mr. Gustave Giovannoni's paper on "Architectural Education in the Present in Italy," some part of which was given in our last issue.

As regarded the artistic direction and the method by which were incorporated into it the conditions of modern problems and plans and those of the tradition, the principle followed was as follows. In the beginning the study was based on the one hand on classical forms and their laws, so as to mould the mind of the young man into an architectural humanism similar to that which the study of Latin produced in his general culture; on the other hand, on simple plans or schemes without that exaggeration either of the synthetic volumetric study or of excessive care for the style. In that class of research very useful methods were to be found in the manifestations of the spontaneous and picturesque architecture of country houses or in the more highly developed and elaborate manifestations of the so-called minor architecture which lived in the modest city houses—villas, gratings, small churches—which beautified the streets by small local touches and solved in a natural manner so many problems which troubled modern architecture.

Composition in various styles of the past was therefore carried out as a direct exercise of the course of architectural styles and of history of architecture side by side with the sketching in a pocket book and making plans of monuments and studying their restoration. These compositions in style dealt, however, with genuine problems such as those of an old edifice with its old destination and in its proper environment (a Roman house in Ostia, a Gothic church in Siena, an eighteenth century palace in Naples, &c.), leaving aside the application of styles to modern problems.

It was intended in that way to prevent from the first false ideas of style not based on any rational reason from getting hold of the mind and taste of the young, which must be formed by the progressive exercises, with a relative freedom which was controlled merely by the initial classical education and discreetly guided by the advice of the teacher. In the same way as various edifices had developed or were developing in an architectural environment with a free and varied harmony, the single individualities must find in this instructional environment means of maturing without being oppressed, having in common merely the general ideas, the sentiment, the language of architectural inheritance. And this method began, in fact, to bear good fruit.

At the High School of Architecture in Rome there was a special course for the study of monuments which now began to function as a branch of the school itself. The object of this special course was to develop analytical study of history, technique, and art of monuments, systems of restoring them, and archæological methods pertaining to architecture; it was destined to become a centre of culture where architects would meet archæologists and historians of art, to constitute, so to say, a workshop for research in assistance to the serious problem of restoration of ancient monuments and excavations, and to prepare in that way qualified technical and artistic staff to whom the State could entrust the task of preserving the nation's capital. Its foundation had signified the transfer to architects of the study and care of the monuments, which was now frequently in the hands of other people who lacked the necessary technical and artistic preparation.

The number of students in the school of Rome amounted this year to about 150, and in the Architectural Section of the Polytechnic of Milan to about 60. These figures were still very small compared with the thousands of civil pupils in various schools of engineering and in polytechnics in Italy who were sufficiently if not deeply prepared in the studies of architecture and were entitled by their leaving certificate to practise it. But it should not be forgotten that it was a period of new foundation and of introduction of new ideas. The principle having now been firmly established that the art and the profession of a modern architect must be distinct from those of an engineer (contrary to the tradition of studies which was more deeply rooted in Italy than elsewhere), architectural teaching taken in itself was found to progress quickly and to reach the goal of preparing not a few exceptional architects made to raise peculiar and grandiose buildings, but a large number of professional architects capable of grappling with every concrete problem of building. When that reform came to maturity it would be possible to introduce a sharper subdivision in the professional practice between architects and civil engineers, who now worked in the same field.

It was necessary to make a brief mention of the institutions which completed the culture of architects after they obtained their leaving certificates, and gave artistic direction and finish to the young. The national artistic foundation for architecture, an institution somewhat similar to that of the Prix de Rome in France, was of greater importance than competitions open to the young; it was offered by the State every two years and lasted for two years. Numerous public and private foundations enabled young architects who distinguished themselves to devote themselves to study before starting professional work.

The competitions for young members instituted by the "Associazione Artistica fra i cultori d'Architettura" in Rome, a corporation which had for its object artistic and general culture, had lately acquired great importance as an adjunct to the official course of training. The subjects of these competitions were very modest and practical, such as projects of groups of small dwelling houses, of small country churches, of special building arrangements, &c., in which the young purified their strong sentiment for art, keeping far from the empty academy, the place of which in the modern nervous life became of secondary importance. By the side of those competitions a series of lectures, debates, visits to monuments or to works in course of construction, completed the education of young architects, brought them in contact with their maturer colleagues, and allowed that fusion between tradition and innovation which in Italy was necessary since it had to harmonise with the permanent and continuous character of its architectural manifestations.

The results were very satisfactory and promising. All the energies of the new generation converged now in the effort in a single direction. The dead centre had been passed, and the young saved Italian architecture and restored it to its nobility. The fifty years of aberration in the teaching of architecture, now surmounted, had not in fact left unaffected the average architectural works, though, of course, that does not imply depreciation of some monuments of high importance such as the Monument to Victor Emanuel, the Palace of Justice in Rome, &c., that had been produced in that period. Unsuitable and irrational imitations of styles vulgarised by speculation had too frequently alternated with the application of exotic fashions without the architects remembering that national style in architecture was a positive reason rather than sentiment, and that ephemeral caprice was inadmissable in permanent manifestations such as architecture which was settled by extrinsic rather than by intrinsic conditions.

Discussion.

Professor C. H. Reilly said looking at their English towns, what did the nineteenth century schools give them? They gave egotism and rank individualism. In place of the urbanity and continuity of the eighteenth century they had the riot of free architecture which produced towns like Wigan and Bolton in the North and thoroughfares like Oxford-street and Fleet-street in London. It was because the individualists of the nineteenth century broke through all the rules and restraints that had grown up through centuries that to-day they had nearly all their buildings overloaded with unnecessary features and ornaments. Modern French and American buildings were clean and restful structures in comparison. The great achievement of American building was that the general level of the worst buildings had been raised. Only the co-operative spirit, the sense of responsibility to the community, could successfully combat individualism and restore again something like order and decency to their towns. This was the chief problem of the future and the solution of it was the chief contribution the schools of architecture could make. If they solved it, it would be because they had learnt from France the right method of approach to a problem and the value of a logical solution.

By accepting French logic they learnt to build with restraint and dignity, but they had a long way to go before they reached American standards. In American schools they had 5,000 students; in England they should have, not 686 students, but 2,000. If English offices could reproduce the spirit of comradeship the schools possessed, students would not be so depressed on entering them. Mr. Waterhouse had mentioned the spirit of the offices in the eighteenth century; if only it were as general to-day they might hear less of the divine inspiration of the great architect, but they would have a prouder and better spirit of work. Enthusiasm was too valuable to be lost in offices run like factories. It was important that programmes should be set that called for simple, monumental solutions. If they did big things simply and directly they would do little things with distinction. It was not possible to enlarge a cottage into a palace. There were two schools of architecture in England at present: one derived from the association of the domestic hearth, and the other from the Roman Forum. He, Professor Reilly, would choose the latter.

Mr. Howard Robertson said he entirely agreed with Professor Reilly with regard to his defence of the schools in respect of generally raising the standard of architecture. They did not want young men not fitted for architecture, and self-respecting schools rejected them. The trouble seemed to be to decide what constituted an architect; there were many differences of opinion as to his function. The opinion had been expressed that his function was knowing everything about the feel of materials. Then there was the business man in architecture who got jobs and hired them out; they were better without him. Then there was the type mentioned by M. Jaussely; a big man who was not worried by details of construction, but was concerned with the big problem of handling form with the materials and construction available. Lastly he would include the ordinary small man in practice who had a feeling for craftsmanship. All those people came into the schools to be trained. The only conclusion they could come to was that they had different types and could not make the curriculum too inflexible. It was questionable whether five years was such a long period that a man could not go through it without having individualism crushed.

The following letter from Professor Lethaby was then read:—

Architecture: Design, Education.

"The problem, what is the right kind of education in design for architecture is difficult to discuss, for the words are so variously understood in different minds that they stand for three unknown—or at least, ill defined—quantities: architecture, design, and education. Two or three years ago I tried to draw up a short statement of what I thought might best be meant, and when it was shown to an able man he seems to have been quite interested, for he remarked, 'It expresses exactly what I don't mean.' The subject is generally discussed as if it involved deep metaphysical questions to be argued over like a theology, and the amendment of educational processes is likely to be as difficult as to reform the Book of Common Prayer.

"What I think should be meant by the words must be plainly said at once. By 'architecture' we should understand the whole building work of a time or country; by 'design,' arranging how this work should be done; and by 'education,' training in the same.

"On the very first point, that 'architecture' must mean the whole of building work (I must not say art here, for that word is another nest of ambiguities), it will be said that most of this work is obviously unworthy. Just so! it is unworthy architecture! It is impossible to draw any line giving architecture a superior status to building that does not result in defining it in such a way as may leave some of the best and most beautiful buildings in the non-architectural class, while retaining some of the most dreadful ones within the fold. Secondly, it is thus we use the word in regard to the building arts of past times. Thirdly, it is only by bettering the whole body of building that we shall be able to raise the summit. Fourthly, to seek to improve the whole custom of building in a country seems to be the only motive big enough to worry about.

"By design I mean the reasonable for seeing how sound work shall be done. Design in the modern sense of contriving striking 'effect' was unknown in ancient art. Custom was then the designer, requirement was the definer. Design as *design* is a modern disease. We have to get rid of 'design' in the discovery of the inevitable. It appears to students that to be a competent architectural designer is to be a master joker in whim-works. I must say that it is as silly to design modern buildings in the styles of school competitions as it would be to

design ships and engines in anxiety about massing, composition, lines, proportion, and all that. The truth is that engines and ships, having reality and being organic structures, have form and style, too; whereas the compositions in 'looking so' have only the style of a style.

"By education we must mean the best possible training in a sound knowledge of fine procedure in building. It is not necessarily attendance for many years at a school. Schools may doubtless teach many things, like planning, geometry, mathematics and drawing, but school education must be supplemented by direct contact with hard material and real problems. Even in what is done in the schools, it should be reconsidered whether they are done in the best way. Drawing itself, if I may venture to say so, is in danger of being thought of as a way of preparing fascinating winners in competitions, not as the best way of representation. Fine and sincere drawing is undoubtedly a personal discipline, little as it has to do with the hard realities of building. To the young student, I should like to say—so far as you are permitted—put structure in the place of style; put craftsmanship in the place of draughtsmanship; and put science in the place of archæology.

"Old building art was essentially different from ours. It was folk custom freely interpreted by little masters who were of the same class as the executants, and it was done for local understanding in local ways. It was often small and shy, yet always showed the human soul. Its essence was craftsmanship. Modern building in cities has to be planned by experts trained in universal science who order from a distance executants with whom they have little direct contact. Its type is engineering.

"One was intuitional and immediate, the other is intellectual and international. All attempts to make modern highly organised building resemble the old free craftsmanship are foredoomed to failure; we are fighting against the essence of the thing instead of seizing that of making the best of it. Although it may be anxiously provided that there shall be none but handwork, the result is all the more subject to the machinery of plans, specifications and contracts, and you reach less freedom rather than more.

"In country building it might to some extent still be different if we approached this work from the end of craftsmanship, local custom and materials. There might well be a difference between city and country buildings, and the kind of people who undertake them. Always, too, all decorative matters should be the contribution of independent artists. Decoration is of the nature of poetry, and machine-made poetry is really an unnecessary mistake.

"Although a great gulf is fixed between the past of architecture and ourselves, all frantic efforts to form any new and original style are misguided and the results seem to me worse than the dead style stuff to which we are accustomed. You cannot make originality, you must find it. True style is not a whim, it is the expression of that which is within.

"As I see the problem there are two great ambitions open before us: To be better builders and better structural engineers. There are two main approaches: (1) From the side of workmanship, the knowledge of materials and methods; (2) from the side of science, mathematics and books. These two paths, however, must be drawn together; the scientific man should go through as much shop drill as possible, and the practical craftsman must have book knowledge, too. Art and science have to be re-intergraded. I should like co-education with builders and engineers.

"The 'styles' should not so much as be mentioned among you. There is something shameful about talk of such vain superstitions which, in fact, stand in the way of our working towards true style. We have too long tried to impose 'styles' from outside, whereas true style and vital forms are always the results of growth from within. In the place of style dreaming we must put the idea of structure life, energy, activity.

"By structure, I mean something quite different from what is ordinarily meant by construction, the safe putting together of a style-design. What should be understood is an organic principle directed towards the perfecting of building types, including skilful planning, suitable selection of materials, adequate lighting, warming, roofing, efficiency, endurance, economy. I mean a sort of building crystallisation, the entering on a line of development like those which have produced the ocean liner, the engine, and the aeroplane.

"It is a big matter which requires a great effort, and I wish I could suggest a motive strong enough to be a counter-attraction to the distinctions and prizes that are to be won by designing draughtsmanship 'architecture' in the air. All I can point to is the reason of the thing and the public service the architect who can improve ordinary buildings—for example, the small dwelling house—will be a benefactor to his country. Moreover, the nation which develops a school of structural architecture will necessarily lead the others. We shall have to copy wisdom if we cannot discover it for ourselves. If we won't look forward we shall have to 'look out.'"

Mr. W. W. Scott-Moncrieff said in the matter of architecture all nations should have their own individuality, and, for this reason, he made an appeal to his own country to strike out a line in architectural education and stick to it. The system that might be right for France or America might not necessarily be right for England.

Mr. C. R. Ashbee said with regard to architectural education of the future, they must include social as well as technical education. There were five points which were not sufficiently considered. First, the architect and the profession generally must get to know the workman—what he stood for and what he did not; and what was the cause of the chronic discord between masters and men? Second, in architectural education of the future the question must be studied as to what was right or wrong, logical or illogical, with regard to machinery. They had so far regarded it empirically. Third, the architectural schools had come to stay, but it was necessary to remind themselves that schools must always remain imperfect instruments of architectural education, and that they still continued to be divorced from life. The craft and technical vocations could only be learnt in the workshops of those who were practising for a livelihood. Therefore, they should distrust schools, particularly technical schools. Much of the finest building, old and modern, had been done by men who could not, in the accepted sense of the word, draw properly. Fourth, the architectural education of the future must give heed to the humanities. Lastly, when attempting to solve some of those problems, they must not forget how much damage had been done by the war. The architectural education of the future would have to take the thread up from where it was dropped in 1914.

MM. Carl Brummer, Jean Hébrard, A. Defrasse took part in the discussion.

Professor Beresford Pite said he would like to draw attention to two matters. First, the important move which had recently taken place in the recognition by Cambridge University of the importance of architectural study, and the admission of architectural studies into the curriculum of the University. The great need of architectural education in the future was not students, but teachers inspired with wide ideals which far exceeded the requirements of a curriculum. Teachers who could create schools, and whose personal influence would replace the loss that architecture was sustaining through the lack of individual masters. The other point he wished to emphasise was the very interesting letter from Professor Lethaby and the important speech of Mr. Ashbee. For some time now, about two years, a group of architects had been meeting in London to consider the possibilities of an ideal for architectural education.

After M. Horta, M. Victor, Mr. Foster King, and M. Vladimir Jezek had taken part in the debate, the Chairman closed the discussion.

THE BANQUET.

A banquet in connection with the Congress was held at the Hotel Victoria, Charing Cross, on Thursday evening. The President of the Royal Institute (Mr. J. A. Gotch) occupied the chair, and amongst those present were Lord Crawford and Balcarres, Sir Reginald Blomfield, Sir John Burnet, Sir G. Gilbert Scott, Sir John Simpson, Sir Cecil Harcourt Smith, Sir John Sulman, Sir A. Brumwell Thomas, Sir Charles Walston, Sir Lawrence Weaver, and Messrs. S. D. Adshead, A. Annoni, T. P. Bennett, A. Bèrard, C. Boni, W. A. Boring, Carl Brummer, L. B. Budden, H. P. Cart de Lafontaine, L. M. Cordonnier, H. O. Confiato, H. C. Corlette, W. E. V. Crompton, P. D'Achiardi, A. J. Davis, E. Guy Dawber, A. Defrasse, Rudolf Dircks, Franz Drobny, W. Emerson, H. M. Fletcher, Cass Gilbert, Charles Girault, H. S. Goodhart Rendel, W. Curtis Green, Stanley Hamp, Jean Hebrard, M. L. Jaussely, Gilbert Jenkins, Arthur Keen, Erik Lallerstedt, H. V. Lanchester, A. Louvet, Ian MacAlister, Mervyn Macartney, A. R. Mercato, M. O. Monasterio, E. C. P. Monson, W. G. Newton, R. Ostberg, E. J. Partridge, A. Beresford Pite, W. S. Purchon, C. H. Reilly, Howard Robertson, D. F. Slothouwer, M. J. H. Somakeo, Arthur Stratton, L. S. Sullivan, R. Unwin, C. F. A. Voysey, E. P. Warren, Paul Waterhouse, Maurice C. Webb, J. H. Worthington.

Proposing the toast of "The Progress of Architectural Education," MR. GOTCH said he thought they would all agree that architectural education was now so firmly established, owing to the progress which had been made during recent years, that its continued progress in the future might be taken for granted, and they might drink the toast with a light heart. Its success depended in a large measure on the teachers, and to them and to the Board of Architectural Education they owed a deep debt of gratitude. He was happy to believe that the teachers took a wide view of their responsibilities, for education was not merely the imparting or acquiring of knowledge but the process of sharpening the faculties and of developing innate powers to put to good use the knowledge which was acquired. He had little doubt that architectural students avoided the danger of becoming too learned, of being too thoroughly armed against the forces of ignorance and incompetence, and thereby rendering themselves liable to share the fate of the unlucky knight who was smothered in his own armour. At the same time, in architecture as in anything else, a little learning was a dangerous thing, and if students had their own interests at heart they would quaff deep the draughts which were held out to them by the architectural schools. That architectural students in other countries were working to some purpose was manifested by the splendid exhibition of their work at Grosvenor House, which had been one of the notable features of the Conference, and that they were supported by their distinguished countrymen was evident from the welcome presence of so many eminent architects from overseas who had attended the Conference in most delightful circumstances, which promoted the wish that all nations could be as closely united in politics as they were in art. He coupled with the toast the names of three of those eminent men: M. Girault, whose singular genius had already been recognised by the Institute by the award of the Royal Gold Medal; Mr. Cass Gilbert, one of the most distinguished architects of America, who was showing a lead in modern architecture in such brilliant examples as the Woolworth Building; and Mr. Ostberg, of Sweden, whose splendid design for the new Town Hall at Stockholm had been exhibited at the Institute and had filled them with deep and genuine admiration.

Messrs. Charles Girault, Cass Gilbert and Ragner Ostberg responded.

MONSIEUR GIRAULT expressed, on behalf of the architects of France, their great pleasure at having had an opportunity of attending the Congress. He would assure them that they had taken a very great interest in the enlightened views on education which had been expressed in the discussions, of which they would all reap

advantage. If the different groups of people had, by reason of their different countries, their different customs, their social state, adopted different methods of practising the art of architecture, it did not matter so long as the great principles of the art could be made to serve as a basis of study for the architecture of the country in which the architect practised. An equal admiration should be reserved for mediæval architecture and for the beautiful architecture of ancient times. In considering the materials to be used in building, they should take into account the climate, the ways of the people, and the temperament of the people, and seek logically the problems which had throughout the ages confronted mankind. Brutally to transport the methods of one country into another without knowing the traditions and customs of the country in which the method of building originated was illogical, and was not the way in which would be produced a building which would be the admiration of those who beheld it. When, in order to educate their young architects, they placed before their eyes the best examples of the past, it was not to incite them servilely to copy those examples, but that they might apply themselves to the gaining of a knowledge of how the great masters of the art of building had gone about their work. Past generations had left imperishable monuments which were witnesses to their ability in the art of architecture and which also were records of the customs and politics and religion of their times. Architects of the present should not confine themselves to erecting monuments to meet the popular demand, but should in every case satisfy themselves that the laws of hygiene were followed so that the buildings would be healthy and pleasant habitations. More than ever the study of architecture should concentrate on the study of small houses. Perhaps it was hardly necessary to emphasise this to their English *confreres* who had given them a lead in the design of working-class dwellings, for it was with unmixed admiration that the foreign delegates had seen the housing schemes in this country.

Mr. CASS GILBERT said architecture was the recordance of civilisation; it was, in fact, the recordance of life itself. It was always of its own time. It might sometimes try to imitate, but it could not do so successfully because the conditions were always different with each age. Architecture reflected the conditions and civilisation of the age in which it existed. Whatever was taught in the present, the architects of the future would, consciously or unconsciously, record indelibly the civilisation of the age in which they lived. It was said of Solomon that he was the wisest of men because he was the most learned; therefore, teach wisdom, teach understanding of the spirit of things, of the spirit of the age. It was the spirit they should teach—let imagination run, for the trained mind would cover an active imagination and make it more useful for the present and more valuable for the future. It was up to the architects of the present to keep burning the torch of yesterday, and pass it on to the eager age of to-morrow. He and the other delegates all felt grateful for the opportunity of attending the Conference, and would carry the memory of it as another event in the history of the Royal Institute of British Architects.

The Cover of the Congress Banquet Menu.
Designed by Mr. GERALD MOIRA.

MR. OSTBERG said Swedish architects had the habit of cultivating in their northern country the architecture of the Greeks 2,000 years ago, and that could be seen reflected in their modern buildings.

MR. PAUL WATERHOUSE, proposing "Our Guests, Foreign Countries, and the Dominions of the British Empire," said when it was remembered that the Congress represented no less than seventeen Dominions and foreign countries, they would realise what a big task he had been set in proposing their health. At the conclusion of a witty speech, in which he addressed the foreign delegates in French and introduced some couplets suitable to the occasion, he said it was in no artificial parlance of the dining-room, but with a very feeling heart, in which all his English friends joined, that he asked the Englishmen present to drink the toast.

MR. H. K. STABELL, in responding, said on behalf of the nations invited to the Congress, he expressed their most hearty thanks for the hospitality they had received and the ideas they had gained on architectural education. The Congress had been very successful, both on account of the very interesting lectures they had heard and the opportunity it had afforded of discussing the subject. The representatives of the different nations would go home and discuss the different ideas they had learned, which he felt sure would be reflected in methods of architectural education in the near future.

SIR GEORGE SULMAN said as an Anglo-Australian, he need hardly assure them of the loyalty of the Dominions—that was proved in the late war—but he would assure them of the loyalty of architects in Australia to the Royal Institute, whose footsteps they endeavoured to follow. They might have some slight differences in method, and perhaps they occasionally made a forward step on their own account as, for instance, the obtaining of registration a year or two ago by the Institute of Architects of New South Wales. He felt sure members of the R.I.B.A. could rejoice in the activities of their Australian brethren. The Conference had been most valuable, and he would take back to Australia many ideas, and hoped to have opportunities of spreading the knowledge of what was being done in this country. In Australia architectural education had not developed as it had in this country; there were only one or two schools, but they would grow. He had been struck in listening to the discussions by the fact that although they differed in matters of detail they were all anxious for the well-being of their profession, for its greater influence in the world, and especially for the benefit of the generation which would take their place in the world. In conclusion, he expressed the opinion that before long, with the development of wireless telephony, it might be possible for the Royal Institute to have for its President a representative from one of the Dominions.

PROFESSOR WELLESLEY MCCONNELL also responded, and expressed his appreciation of the hospitality the delegates had received.

VISIT TO GREENWICH.

The visit to Greenwich on Friday by launch was a great success. Weather conditions again appeared somewhat unsettled, but the delightful greys and opalescent tints of the immobile clouds stirred our foreign visitors to enthusiasm and one heard on all sides such comments as "*C'est épatant ces tous gris!*" "*C'est ravissante cette brume!*" At our departure, the tide was at its highest point and the wavelets and eddies caught in infinite variety the tones of blue and grey, the mellow shafts of golden light which now and again illuminated the passing panorama of the bridges, warehouses, wharves, and other buildings on either bank; while the graceful silhouette of the spires of the City churches and the dome of St. Paul's completed a picture of enchantment.

Chief among those whose duty and pleasure it was to describe this panorama of architectural achievement and historic interest was Mr. John Burns, who must have created a record with a continuous flow of descriptive and informed comment from Lambeth to Greenwich. This, however, by no means exhausted our Honorary Fellow's fund of information, as he repeated the performance on the return journey.

On arrival at Greenwich, our launch made a wide circuit of the river and thus enabled us to get an excellent view of the famous Hospital and the Queen's house beyond, with the fantastic outline of the Observatory on the skyline behind. After a welcome tea at "The Ship" Hotel, the delegates were shown over the Hospital by Mr. T. C. Agutter, architect to the Royal Naval College, who explained the manner in which the buildings had been constructed and how the necessity of providing access from the Queen's House—then a Royal residence—had resulted in the open plan with two blocks of buildings on each side of the central avenue. Of these, the block on the west side is the earlier and is supposed to have been carried out

by Webb. Sir Christopher Wren subsequently made additions to this block and planned the block to the east of the main avenue, together with the two colonnades which form a distinctive feature in the whole scheme, with the Chapel on the east and the famous Painted Hall on the west. This latter particularly interested our foreign colleagues, both on account of its admirable proportions and for the magnificence of the scheme of decoration. A brief visit was paid to the Queen's House, designed by Inigo Jones, forming the central feature at the end of the central avenue with two wings of later date on each side. The central hall was admired and its excellent proportions commented on, as were also the fine ceiling and curious mosaic floor.

The return journey proved even more agreeable than the outward trip, as the sun had, to a great extent, dispersed the clouds, which were massed in towering beauty behind the towers and spires of Westminster.

VISIT TO CAMBRIDGE.

The all-day excursion to Cambridge arranged for the penultimate day of the Congress proved to be a great success; in fact, several delegates from distant lands expressed the opinion that it would have been worth coming to England for this excursion alone, as few of them had any idea of the distinctive charm which is so marked a feature of each of the two great Universities.

The arrangements for the visit (as indeed for all the excursions and visits which took place during the Congress week) were well thought out and worked smoothly, thanks in great measure to that indefatigable secretary, Mr. Everard Haynes, who was ably assisted by the small band of stewards and interpreters. Their success received the best of all tributes—the lack of any comment. The party assembled at the Great Gate of Trinity—surely one of the finest gateways in England—and after a concise summary of the distinctive functions of the University and the Colleges by Mr. H. M. Fletcher, proceeded to the Chapel and Hall, admired the great Quad., and passed on through Trinity to the famous "Backs," with their picturesque charm and wonderful lawns. The latter, as always, were a source of astonishment to our foreign friends. A rapid visit was paid to St. John's, where the "Combination Room," a delightful example of the domestic architecture of the period, with its old panelling and fine modelled plaster ceiling. From St. John's we made our way to Caius and Gonville, where the party was entertained to lunch in the Hall. At the conclusion of our repast Mr. Dawber proposed a vote of thanks to the University authorities in a few graceful and well-chosen words. The Vice-Chancellor, in his reply, referred to the importance of architectural surroundings as an adjunct to the culture which it was the mission of their university to impart and expressed the pleasure which they had in receiving the delegates to this important conference.

After lunch a visit was paid to Magdalen College and the Pepysian Library was inspected before we proceeded by private motor bus to the new buildings of Clare, designed by Sir Gilbert Scott, R.A. Here we were met by the architect, who briefly explained the building. This is rather a departure from the usual type of college building, of singularly happy proportions, treated in grey brick with stone dressings and a red tile roof. In the centre is a memorial gateway of characteristic design. The old buildings of Clare were next visited, and we then proceeded to King's, and inspected King's College Chapel under the guidance of Dr. Cranage. From here rapid visits were made to St. Catherine's, Queen's, Pembroke, and Emmanuel before returning to town. As before, part of the party returned by car and the remainder proceeded to London by train. The car section further divided *en route* as some of the party made a halt at Hertford for dinner, and at the conclusion of this repast Professor Boring made a charming impromptu speech, in which he expressed the thanks of the foreign delegates for the kind way in which they had been received.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

**** *We are glad to give questions and answers but cannot accept responsibility for contributed replies, especially on legal matters.*

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or better still, in typescript?—ED.

[Reply to "PERPLEXED."]

SIR,—I am not quite clear as to the nature of the contract between your correspondent and the person he refers to as the "purchaser." It almost appears as if the latter was only an intending purchaser, in which case there is considerable difficulty, as the subsidy is payable to the person erecting the necessary type of house and application is not accepted in respect of houses that have been already erected, which precludes a fresh application on another's behalf.

If, however, the terms of the contract permit of the "purchaser" establishing this title to the house, and his withdrawal can be made to take the form of a re-sale to the contractor or to another purchaser, then the original applicant for subsidy is entitled to claim the same although the property has passed out of his hands, that is, of course, provided the local conditions as to occupancy within a certain period from completion have been complied with. He thus becomes the person who has erected the house. It would, therefore, be well to consult a solicitor with the object of putting the transactions into correct form, and I do not think there should be much difficulty in so doing.

In future transactions of a like character, where your correspondent erects houses with a view to sale on completion, it would be well if he applied for subsidy in his own name, and he could then claim the grant when the house became occupied. "X.X.X."

Corrugated Iron.

SIR,—Considerable trouble is experienced on the underside of roof and inside walls of a large works covered with corrugated iron. This was painted about two years ago with oxide of red paint, which is now coming off in flakes and powder. The difficulty we are contending with is that *rust* comes off the corrugated iron sheets in the form of dust and settles on our stock, which causes stains. There is water used in our works and it causes a lot of damp vapour. Would some reader give remedy?

"Z."

[Reply to MR. THOMAS TILE.]

Drainage.

SIR,—The open manhole cover as a fresh-air inlet is always objectionable in the vicinity of a dwelling-house, and would be rightly condemned by a surveyor, though he will doubtless require it to be replaced by a proper mica-flap F.A.I.

The present position of the interceptor will not prevent back flooding and the required position will make no difference in this respect, though it rightly throws a long length of drain into the ventilated section.

Water-tight cess-pools will always overflow in time if no provision is made for the disposal of the contents. Most rural authorities undertake the periodical emptying of cess-pools, but where this is not so, the objectionable operation may be avoided by the adoption of a septic tank system, the effluent from which is almost pure and can be allowed to soak away through a filter bed of destructor clinkers. The requirements are that the septic tank must be absolutely air- and light-proof, and the inlet and outlet pipes must dip well below the liquid surface, to allow the scum to form and develop undisturbed.

"SANITARY."

Cement and Other Foundations.

SIR,—I have recently had to put in foundations to carry a stone for a memorial weighing about four tons. The work is under the supervision of a well-known archæologist, who writes to me as follows:—"Cement is quite an unknown quantity as regards its durability over a long period and should therefore not be used. The only thing to do is to carry to the spot flints or small stones, a certain amount of fragments of brick and sand, also unslaked lime. The whole should be well mixed up and then (and not before) water should be poured on and after being thoroughly mixed should be used without delay. This is the only way and will set so hard that it will be just as good in a thousand years as it will be in a few months' time." I should be glad to know if the above statements are justified by facts.

"CLERK OF WORKS."

Floor Treatment.

SIR,—What is the best treatment for good, sound oak floors in a club? We do not wish to stain the boards or varnish them, but to apply something which will bring out the grain and put "life" into the boards.

"J. T."

Leaking Walls.

SIR,—A house built about five years ago with 14-in. walls in cement and rendered outside in cement left from the float, persistently lets the water through. No settlement cracks are noticeable, but pronounced crazing has taken place in some of the outside rendering and the damp patches inside are most noticeable where this occurs. The walls are cream distempered outside.

Can anyone suggest a cure for this trouble?

"ARCHITECT."

Provisional or Copy Amounts.

[REPLY TO "ARCHITECTUS."]

SIR,—Provided the architect takes care to word his orders for goods from sub-contractors appointed by him so that they clearly read as orders for the general contractor to order the goods from the firm concerned, his financial responsibility therefrom begins and ends when he has duly certified for payment, and the sub-contractor has no financial claim upon him except in cases where a certificate has been withheld without justification. The position should be made clear to the sub-contractors when they are advised of the issue of an order to the general contractor. There is a good deal of laxity in these matters, and many architects order in their own names and accept accounts to certify when rendered direct to them. This is a very irregular and unbusiness-like practice, and architects have been held responsible for payment in some such cases where the general contractors have failed.

"X. Z."

London Housing.

Up to the end of March the L.C.C.'s total capital expenditure in respect of housing was £15,499,566. Their pre-war housing operations as a whole (apart from the cost of clearance schemes, &c.) have resulted in a surplus of £106,984.

For the current financial year the total of the sums to be voted on capital account is £1,909,900, in addition to which £1,580,000 is included under the heading of provisional sums to cover expenditure on purposes not yet specifically approved by the Council. Of the amount of £1,909,900 now to be voted, £1,169,040 relates to such development of the Becontree and Downham estates as has been approved by the Council. A sum of £50,000 is provided for lump sum grants under the Act of 1923 in respect of houses erected by private enterprise. Since the Armistice the number of houses and tenements completed is 8,570, and of the 1,460 houses and tenements under construction a large number are nearing completion.

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

Building Materials Bill.

The Prime Minister informed Sir K. Wood that the Building Materials (Charges and Supply) Bill would be one of the first measures that the Government would invite the House to consider on its reassembly in the autumn.

Bricklayers' Labourers.

Sir K. Wood asked the Minister of Health whether he could state the arrangements he had made concerning the facilities to be given whereby bricklayers' labourers might rapidly become fully-fledged craftsmen ?

Mr. Wheatley said the National House Building Committee on which both employers and operatives were represented, proposed in their Report to give special consideration in the development of their apprenticeship scheme to applicants such as building trade labourers who had had previous experience of the building trade.

Returned Emigrant Bricklayers.

Sir K. Wood asked the Minister of Health whether he could now make a statement as to the arrangements he had made with the educational authorities for the training of apprentice bricklayers; whether the period of apprenticeship would be thereby curtailed; and whether he could give any estimate of the number of returned emigrants that might be expected to return to the building industry during the next twelve months ?

Mr. Wheatley said he was not yet in a position to make a statement as to arrangements with educational authorities. It was obviously impossible to frame any estimate of the number of emigrants likely to return within the next twelve months.

A Guaranteed Week.

Mr. Wheatley informed Lord H. Cavendish-Bentinck that the question of the adoption of a guaranteed week was one for settlement by the industry itself. He understood, however, that before the present dispute arrangements had been made within the industry to refer the question of payment for wet time for negotiation and settlement.

Monthly Return of Apprentices.

Mr. Wheatley informed Sir K. Wood that he had already undertaken to consider, in consultation with the Industrial Committees he proposed to set up, the possibility of obtaining a monthly return of apprentices. He could not undertake, however, to furnish this information or particulars of the men employed on housing schemes during the Recess. The present returns from local authorities did not provide for this information, and it was impracticable to obtain particulars of the number of men employed by private enterprise on housing work.

Rents of State Houses.

Mr Meller asked the Minister of Health whether he was now prepared to state what arrangements he had made to meet the discontent that would arise if houses built under the new housing schemes were let at a lower rental than houses of a similar type built under previous Housing Acts ?

Mr. Wheatley said he did not anticipate that the difficulty which the hon. member had in mind would arise and he did not propose to make any arrangements at the present time.

A London Scheme.

Viscount Curzon asked the Minister whether, before giving his approval to the erection by the London County Council of five-story dwellings containing about 537 tenements, with accommodation for over 3,200 persons on a site of about eight acres at East Hill, Wandsworth, a scheme involving the erection of approximately 67 houses to the acre, his attention was drawn by the Wandsworth Ratepayers' Association to the Ministry of Health Circular 388 A, of March 15, 1924, expressing the opinion that the density of approximately twelve houses to the acre represented a desirable standard, and that, as a general rule, a local authority should not approve the building of more than 20 houses on any one acre; and on what grounds he gave his approval to this scheme which involved the construction of roads of a less width than 40 ft. and of a steeper gradient than 1 in 20 which were the minima prescribed by the London Building Act, 1894 ?

Mr. Wheatley said the scheme was approved before he assumed office. He understood it was the intention of the London County Council to use this site as a rehousing site in connection with schemes for the clearance of insanitary areas. In view of the scarcity of suitable sites for rehousing in the County of London, and of the altitude and open situation of the site in question between the river and a large common, it was considered that some departure from normal standards could be justified. This decision was reached after full examination of the objections raised.

Hadrian's Wall.

Major Church asked the First Commissioner of Works whether his attention had been called to the suggestion to restore certain parts of Hadrian's Wall; and whether he would give his earnest consideration to the project, seeing that it would provide work for a certain number of unemployed under skilled supervision and at the same time present to the nation a memorial of great historical and educational interest ?

Mr. Jowett said he could assure the honourable member that a project of this kind would be viewed with the greatest sympathy by his Department. There was, however, no part of the Wall in the charge of the Department, and under the existing legislation dealing with ancient monuments the Department was not empowered to spend money on repairs or excavations on monuments not in its charge.

Emigration of Skilled Workers.

Mr. R. Morrison asked the Parliamentary Secretary to the Overseas Trade Department whether his attention had been drawn to advertisements now appearing in the press, inserted by the Empire Settlement Bureau, offering assisted passages to one of the Dominions to skilled carpenters, bricklayers, plasterers, masons, and plumbers; and, in view of the great importance for house-building purposes of retaining as many of these skilled workmen as possible, whether he would see that these men were not encouraged to emigrate.

Mr. Lunn said that the answer to the first part of the question was in the affirmative. As regarded the second part it was understood that the advertisement had been authorised by the Government of Australia; that the number of skilled workers required was strictly limited, and that the opportunities offered were likely to be advantageous to the individual. In those circumstances, it had not been considered desirable to interfere.

Non-Parlour Houses.

Mr. Wheatley informed Sir K. Wood that the following were the average prices of non-parlour houses (excluding cost of land and development), included in contracts let by local authorities during each of the months from January to June, 1924, the latest date for which figures were available:—January, £384; February, £389; March, £418; April, £416; May, £408; June, £421.

Houses Built in London.

In reply to Colonel Vaughan-Morgan, who asked the number of dwelling houses erected and in course of erection, in the County of London, and in the area of Greater London within the last three years, Mr. Wheatley said that in the County of London the number of completed houses was 12,594. There were 1,512 in course of erection, making a total altogether of 14,106. The number completed by private enterprise without State assistance, the figures for which were only available for the eighteen months prior to March 31 last, was 2,563, while 1,379 were in course of erection, bringing the total up to 3,942. There were 25,768 dwelling houses completed in the Greater London area (including the county), and 3,801 in course of erection, a total of 29,569. Those completed by private enterprise without State assistance for the eighteen months prior to March 31 last numbered 16,663, there being in course of erection 8,739—a total of 25,402.

Brickfields Development.

Mr. Richards, replying on behalf of the Minister of Health to Mr. W. Thorne, said that the report of the National House Building Committee showed that all the brickfields of the country were not yet working at full capacity. The Goverment had taken the most practical steps for securing an increase in production, by the adoption in the new Housing Bill of a long programme of house building which would enable manufacturers with confidence to develop their resources and increase their output.

The Building Dispute.

Mr. Shaw, the Minister of Labour, in answer to Sir K. Wood, said that the situation in regard to the building dispute was more complex and difficult than any he had ever known. He found that neither the employers nor the men believed in the good faith of the other. That being so, the difficulties were very great indeed. There would, however, be a further meeting of both sides on August 6. As to what the extra cost on housing would be if certain eventualities were to arise, that was a hypothetical question which might be left to the future. It would be perfectly easy to make an attack either on the employers or on the men—there was plenty of ground for it—but it would be wiser to allow the industry to come to its own conclusions.

THE HOUSING BILL.

The House of Lords considered the Housing Bill in Committee on Monday, August 4.

Before going into Committee, the Earl of Midleton moved "That this House resolves that, having regard (1) to the great charge on public and municipal funds involved in the Bill; (2) to the deficiency of skilled labour and increasing cost of materials; (3) to the consequent delay and enhanced cost in erecting the necessary houses—an immediate inquiry should be set on foot by His Majesty's Government as to the possibility of building houses of other materials than brick, which could be erected more rapidly and at less cost." The noble Earl referred to the speech of Lord Weir on standardisation (reported in *The Builder* last week), and said the Government had two alternatives to consider in view of the high cost of brick houses and the shortage of bricklayers. The first was Lord Weir's house, which could be produced for less than £300, and the second was the undoubted facilities that existed in Canada for building wooden houses on a system that would not require the labour of carpenters in this country. These houses could be sent over here by the hundred thousand as quickly as we could put them up, and could be provided in the opinion of those who knew, at from 20 to 30 per cent. less than a brick house. Wooden houses could also be obtained from Scandinavia. Further, there were houses made of wood and concrete which could also be produced at 30 to 40 per cent. under the cost of a brick house. If either of these alternatives were accepted the emergency could be met for three or four years, but there was no possibility that that could be done under the Government's scheme with brick houses.

The Lord Chancellor, on behalf of the Government, accepted the motion, saying that it did not really go far enough. The Minister of Health intended to hold an inquiry, the scope of which would be wider, with regard to points connected with production and economic distribution. It was a great mistake to suppose that there would be any hard and fast way of building the new houses. All such propositions such as those put forward by Lord Weir would be considered. Even the wooden houses from Canada and Scandinavia might be considered. In fact, any proposal which would produce

houses quickly and cheaply would be looked at gladly.

The motion was agreed to.

The House then considered the Bill in detail. Few alterations of substance were made. On clause 3, which deals with the conditions to be attached to the letting or sub-letting of houses, the Lord Chancellor moved an amendment to provide that consent should not be given to the assignment or sub-letting unless it was shown that no payment other than rent had been, or was to be, received by the tenant in consideration of such act. The amendment was agreed to.

An amendment, moved by Lord Strachie, to provide that the rents charged should not be higher than would be payable if the houses were let at the appropriate normal rents charged in respect of pre-war working-class houses of similar size, type and amenity, was carried against the Government by 42 votes to 9. The Lord Chancellor feared that the amendment would lead to the standardisation of houses.

One of the chief alterations was made on clause 4, where an amendment, moved by Lord Strachie, was carried against the Government, providing that the housing position shall be reviewed in 1926 instead of 1927, and after every second year instead of after every third year.

On clause 10, which deals with materials and methods of construction, Lord Sumner moved an amendment providing that if a local authority refused, without reasonable cause to adopt a new material or method of construction which the Minister deemed suitable, and further refused, on reconsideration, without reasonable cause, to adopt such new methods, the Minister might make such deductions from the Government contributions as he deemed reasonable.

The amendment was agreed to, and the Bill, as amended, was reported to the House.

On the report stage, on Tuesday, Lord Banbury moved amendments to provide that where houses that are provided under the Bill by the Common Council of the City of London and the London County Council make supplementary contributions, the amount of the latter should be treated as part of the expenses borne by the local rate in the City. The Government accepted these amendments, which were agreed to.

An amendment moved by Lord Strachie, to specify that the tenants to whom houses built by the local authority under the Bill are to be let shall be "members of the working classes," was accepted by the Lord Chancellor and agreed to.

The report stage was then concluded and the Bill read the third time.

Kensington High-street.

The Kensington Borough Council recently approved of a scheme for the widening of High-street on the south side.

This would be done by the setting back of Messrs. John Barker's main frontage, and that of Messrs. Derry & Toms from the Metropolitan District Railway Station Arcade on the west to Young-street on the east. The new line of frontage would, if the scheme is carried out, effect a widening of upwards of 20 ft. at one part. The proposals include the building over of Ball-street at the back of Barker's main buildings, and certain mewsways, and the widening of King-street, leading to one side of Kensington-square. A considerable widening would be effected in what is now the narrowest part of Kensington High-street, in front of the Town Hall.

Obituary.

The death has occurred of Mr. Ben. Jones, builder and contractor, Henfren House, St. Clears, Carmarthen, a former member of the Carmarthen R.D.C. and Board of Guardians.

Messrs. Morner & Co.

In Messrs. Morner & Co.'s announcement in our last issue the price of their P.P.P. Flooring was given as 9s. This should have read 10s. 6d. per sq. yd. The address of this firm is 54A, Parliament-street, S.W.1.

ROYAL SANITARY INSTITUTE ANNUAL CONGRESS—II.

The annual congress of the Royal Sanitary Institute was held at Liverpool last month. Some account of the proceedings, and a report of the first day's meeting of the section of architecture and engineering were given in our issue of July 25, and is continued below:

SUBSIDY HOUSES.

MR. SEARLES-WOOD moved the following resolution:—

> That the Council of the Royal Sanitary Institute be recommended to urge upon the Minister of Heath the undesirability of perpetuating the 1923 standard of types and sizes for the building of two-and-a-half million houses during the next fifteen years.

In his opinion it was stupid to tie local authorities down to those dimensions for such a long period.

In seconding the resolution, SIR HENRY TANNER said flats were wanted as well as houses; small dwellings were in greater demand than houses. In urban areas it was impossible to build twelve houses to the acre, and people who lived and worked in towns did not always want to be moved four or five miles into the country. In one scheme recently carried out there were over sixty dwellings to the acre in three-story buildings, and, with plenty of open space around, they were quite as healthy as separate houses and considerably cheaper.

MR. BROWNRIDGE, speaking against the resolution, said, in his opinion, the minimum and maximum sizes laid down allowed plenty of scope, and having regard to the fact that houses were so badly needed it would be better not to harass the Government further by raising this point now; in Birkenhead they had built a variety of very good houses under those restrictions.

THE MAYOR OF WEST HAM raised the question of boroughs such as his, where there was no room to spread the population, as the area of the local authority was hemmed in by surrounding authorities. It had been suggested that they should go outside their own area and build houses miles away. But in his borough, 50 per cent. of the male population were casual labourers at the docks, who had to apply for work three or four times a day, and it was impossible to ask those men to remove to new houses miles away from their work. He objected to the hands of the local authorities being tied to the types of houses laid down by the Government. With full use of modern scientific methods of building, and a proper conception of its responsibilities, it would be possible for the local authority to provide adequate accommodation in its own area, and, moreover, if they had more freedom they would be able to build good houses at lower cost and thus let them at lower rents. In West Ham, for instance, the problem could best be met by the erection of flats in three-story buildings, with an open space in a central courtyard in which the children could play. By that means they could house everybody in the borough, without the necessity for going outside, under as good conditions as under the Government scheme.

A delegate from Sunderland said the Corporation of that town was building sixteen houses as an experiment, to see exactly what profit private enterprise was making, but it was found that the cost of building by direct labour was as much as by private enterprise.

MR. HILL (Liverpool Property Owners' Association), said property owners were quite in favour of improving housing conditions. In the case of unhealthy areas, however, property-owners were not invited to co-operate with the Health Committee, but were faced with a very penal legislation. He suggested that, in the case of unhealthy areas, property owners should be invited to try to discover a method of improving the conditions at little cost, and that a subsidy should be allowed them to improve their property. By that means he thought slum property could be made healthy at less cost to the rates than by the present method.

After some further discussion, the resolution was withdrawn.

HEALTH EXHIBITION.

A well-known and appreciated feature in connection with the Congresses of the Royal Sanitary Institute, the Health Exhibition, is always of interest to those concerned with the well-being of the public. This year's show was opened by the Lord Mayor of Liverpool, who expressed the opinion that it should do for the general health of the country what the British Empire Exhibition was doing for the trade of the Empire.

The majority of the exhibits were concerned with foods and personal hygiene, but a number of products of interest to architects and builders were to be seen. One of the largest stands was that of the Public Health Department of Liverpool, which included models showing the unhealthy areas already dealt with and the types of new houses erected under the housing schemes. A new glazed wall lining was exhibited by Messrs. Marvle Products, Ltd., of Wellington-road, Battersea, S.W., which is claimed to be much cheaper than any other type of permanent glazed wall lining. The basis of the material is concrete, the surface being cold-glazed in any desired colour or mixture of colours. The material can be drilled in order to fix it to existing walls, and we are informed that the surface does not crack or craze. Other exhibits included sewage apparatus by Messrs. Jones & Attwood, Ltd. (Stourbridge); wood-working machinery by the Dominion Machinery Co., Ltd. (Halifax); gas and coal heating apparatus by Messrs. Sidney Flavel & Co., Ltd. (Leamington); and disinfectants by the Lewbart Manufacturing Co., Ltd. (Norfolk-street, W.C. 2).

The following are among the awards of the judges:—

Silver Medals.—Dominion Machinery Co., Ltd.; Sidney Flavel & Co., Ltd.; Jones & Attwood, Ltd.

Bronze Medals.—Dominion Machinery Co., Ltd.; Easiwork, Ltd.; Lewbart Manufacturing Co., Ltd.; Loft Ladders, Ltd.

LAND FOR A NEW ROAD

MR. J. D. WALLIS, Official Arbitrator, has issued his award in a claim by Mr. Daniel John Coates against the King's Lynn Corporation, touching the Corporation's compulsory acquisition of 1,556 sq. yds. of land in connection with the formation of a new road. The award is as follows:—

(1) The Acquiring Authority to pay to the owner the sum of £395 as purchase money and compensation; (2) the Acquiring Authority to pay interest at the rate of 5 per cent. per annum from the date of entry until payment of the compensation; (3) the Acquiring Authority to pay the fees on this award; and (4) the owner to pay the sum of £21 towards the costs of the Acquiring Authority.

At the hearing of the claim, Mr. H. W. M. Wilkin, F.A.I., giving evidence for the claimant, valued the land at 12s. 6d. per sq. yd., or £972 10s. 6d. There was also a claim by Mr. Coates for valuer's and architect's fees, other professional charges, &c.

On behalf of the Corporation, Mr. C. E. Widdicombe, F.S.I., District Valuer, submitted a valuation of £302.

THE BUILDING TRADE

EDUCATION IN THE BUILDING INDUSTRY

At the annual Conference of the Institute of Builders with the Teachers of Building in Great Britain, Major R. J. Holliday (Vice-President of the Institute of Builders) read a paper entitled "The Absorption of Well-educated Youth in the Industry for Training for Managerial Positions."

Whatever might be the ultimate development of the technical education policy of the Institute of Builders, he said, the facts that that body recognised the need for technical education and was definitely committed to assist in its encouragement imposed upon it the responsibility of considering the nature and scope of the technical education required, how that technical education could be usefully employed, and what arrangements could be made to that end.

Education without opportunity for its full use was wasteful, and in the long run destructive of effort, and no body of men representative of an important industry and desirous of securing a maximum efficiency could afford to neglect either the technical education for its service, or the full employment and development of that technical education in its service. It therefore became important for the Institute of Builders, which was taking an interest in technical education, to consider the capacity of its industry to absorb the youth who had received a higher education for it, the qualifications it demanded from such youth, and suitable methods of continuing and developing the education it had received.

A convenient starting-point was a consideration of the industry's organisation in relation to the general tendency of the commercial world. Two of the marked characteristics of current industrial conditions were the tendency towards specialisation and the tendency towards larger organisations. Both tendencies resulted in the development of the departmental system of control and the creation of managerial positions. In certain industries it would appear possible that both tendencies had been carried to extremes, that the limit of human ability to control from some central point had been reached and that a policy of decentralised control demanding a type of manager with general rather than specialist qualifications had had to be adopted.

Possibly for reasons of technical requirements, or peculiarities of the industry's organisation, or by reason of its freedom from external competition, the building industry did not seem to have shared to the same extent as other industries in the tendency towards larger organisations. True there were businesses which operated all over the world, and businesses which operated all over the country, and although it might be argued that all large building concerns operated under a system of decentralised control (each contract being a separate unit under the immediate control of a man on the spot and the ultimate control of the central office) there were relatively few building businesses under the necessity of establishing district control points between their central office and works and their outlying contracts.

Nevertheless the amalgamation of large concerns and the tendency of building contractors to operate over a wider field led him to his first conclusion, that the building industry was sharing, and would continue to share, in the general trend of the age, resulting in a growing tendency to create managerial positions, an increase in the number of departmental managers required, and a demand for bigger men in this rank of the industry.

At the present time, in addition to such people as contract managers and general foremen, and possibly one or two others on the administrative side of the business, the organisation of all important building contractors was sufficiently developed to necessitate such departmental managers as works managers, yard managers, outside managers, buyers, estimators, measuring surveyors, cost accountants, and company secretaries. And while it would be unreasonable to forecast a very much larger demand for the managerial type, it would be less reasonable to assume that the capacity of the industry to absorb this type had reached its limit, or that there was not room for a considerable development in the administrative and earning capacity of the type.

The better the organisation and the bigger its scale the greater would be the demand for the managerial type. It would be foolish to imagine that in a highly industrialised country such as this they could look forward to an unlimited demand for new buildings. It might even be remarked that the shortage of labour, which was probably due in part to an actual shrinkage in the supply, indicated that the industry had reached the limit of its expansion under its present organisation. But the effect of improved method and the artificial and other controls which existed in every industry made such rapid conclusions dangerous; and he was of opinion that there was evidence that the day was far distant when the demand for rebuilding and new buildings in this country would become stabilised. The progressive movement of trade in which the industry played such an important part in its provision of adequate buildings was likely to involve a fairly steady and, it seemed reasonable to assume, an increasing demand upon the industry. That demand would, to some extent, exist in spite of or because of the supply, according to the inadequate or adequate character of the industry's organisation. It was well to keep in mind that not the least important part was played in this question of volume of demand by the response in efficient craftsmanship and organising ability which the industry made to it; for just as organising ability lowered cost and stimulated the demand so did organising inability raise cost and diminish the demand.

The capacity of the industry to absorb the managerial type would for a long time be limited rather by the technical qualifications of its departmental heads and their ability to develop than by such considerations as the demand for building; and the capacity of the industry to absorb youth with a view to their training for managerial positions would depend very largely upon the natural qualities and the educational qualifications of youth received from technical institutions and other sources.

In that connection he would emphasise the paramount importance to the industry in its higher ranks of a technical education which would develop an appreciation of the industry as a whole, even at the expense to some extent of a specialised knowledge, and of an educational authority which would assist businesses by a preliminary estimate of students' qualities and by their scientific development.

The difficulty of selecting the future manager in the early stages of his career was enormous. Rarely was the undoubted leader or the managerial type discovered without careful observation. There were technical schools today which decided at an early age the special craft a student should follow from experience of his work, and in this grade of employee the work of the technical education authorities in this direction was extraordinarily valuable. On the other hand, it would appear desirable for the day and evening technical education of higher types to be upon as broad a basis as possible, with a view to securing the students' appreciation of the broad requirements of the industry and of ensuring the discovery of the future managerial type rather than to limit the study of this class of student to a narrow field and to trust to luck or accident that their qualities would become apparent before it was too late to develop and to make full use of them.

The industry was full of specialists who had specialised from a relatively early age and who had never been given the opportunity of acquiring the broad knowledge necessary to management; and it was probable that they were carrying to-day in one or another minor capacity men who with wider opportunities of discovering their abilities would have developed into the managerial type, to the general advantage of the industry and the particular advantage of the business in which they were engaged.

The keystone of the successful absorption of youth in any industry was a close co-operation between a technical authority alive to current conditions and requirements of the industry, and the business heads of the industry equally alive to the current conditions and requirements of technical education. These conditions were necessary in order to secure a perfect link between school and business in a logical development of the educational foundation that had been laid, and a full employment of the principles that had been learnt. There was plenty of room in the industry for men in important managerial positions, and there was a heavy responsibility upon the educational authorities of this country to see that the right type came into the industry adequately equipped to ensure their maximum ability output.

The youth which came into the building industry might be broadly divided into two classes. For the most part he came in to fill a vacancy, more especially when he came in on the administrative side, so that, although he believed there were businesses who had definite schemes of training to ensure a broader development than was generally possible in the single department or trade, it was doubtful whether there was generally any clear-cut plan for the development of likely youth beyond their advancement in the department in which they began and where they often ended. There was a good deal to be said for this early specialisation in the present organisation of the industry, but it was wasteful to the extent that it restricted the vision of youth and hindered the discovery of that managerial type which the further development of industrial organisation stood in need of.

For the rest he came in to be taught the business "to the best ability of the employer." He would start at the beginning and go right through the business. In these busy and arduous times, this usually resolves itself into giving the youth an opportunity under a varying supervision to see and to do something of what is going on within the limits of a general plan of a period in the shops, a period on a contract, and a period in the various departments of the office.

Where the latter system obtained, all the seniors were held responsible for the instruction of the juniors, as except in special circumstances no promotion was granted unless the candidate for it had an understudy ready to step into his shoes. Thus a fairly complete ladder of promotion was provided which had the advantage of keeping everyone up to his work and reaching out for the post higher up, if he would avoid the risk of supersession. Of course it would not be possible for building contractors to carry a large number of students in the hope that they would be ultimately absorbed, but there was a normal demand created by wastage and development which it might be well to meet to some extent by the wider introduction of the student class into businesses before the actual need for the finished product was felt. In any case, it should be the aim of all modern employers to keep in view the qualities of their employees, to secure for them opportunities to prove their worth in higher capacities, and therefore to consider plans to that end. Or it might be possible by a revival of the apprenticeship system embodying a well-thought-out scheme of training (designed to continue and to develop in the business the education that has been received in the technical schools) to ensure

a better controlled flow of suitably trained youth into the industry who would there receive that fair field and open opportunity which it was in the best interests of every industry to afford it.

The main difficulty in the organisation of a system of advanced training in the building industry seemed to lie in the financial difficulty in the way of many businesses usefully to carry a qualified man of the instructor class, in view of the limited number of students he would be called upon to supervise. The idea had occurred to him that if the suggestions he had put forward were to be adopted it might be possible for groups of builders to employ area supervisors with teaching and practical experience whose duty it would be to supervise the business training of students in their area, to test their progress, and to act as liaison officers between school and employer. Such a system would place this important matter in the hands of a specialist and make for a valuable interchange of teaching method and current practice. But although the principles of business were fairly constant, there were local variations in practice which would probably render such a system very difficult in operation.

At the present juncture the best solution would seem to lie in the development in each business of a course of instruction which he had outlined, under the supervision of the various people indicated, and subject to the ultimate control of the various directors interested who would take such opportunities as they could to test progress. It was a system which he believed had worked well in another industry, and one which seemed likely to succeed in obtaining the desired product from the right material.

Assuming that every student would have studied the outlines of commercial history and economic geography which in practice were of considerable importance as a background, he would suggest that the general training of the picked student should be divided into four periods before he proceeded to specialise in any particular department, and that his movements and outline instruction should be as follows :—

PERIOD A.

In the Secretary's Office.—The organisation of the industry; Function of its members; Finance; Company law; The organisation of the business; Functions of its departments: Insurances; Contract and common law; Local government regulations.

In Estimating and Surveying Office—Preparation of an estimate; labour rates and conditions.

On Building in Course of Construction (under the general foreman).—Ordering plant and preliminary materials.

In Yard or Depots (under the Yard Manager).—Plant, materials, and transport.

On Building in Course of Construction (under the general foreman).—Labour control and supervision; ordering materials; co-ordination of sub-contract work; measuring up.

In Office and on Building (under the Measuring Surveyor).—Preparation of final account.

PERIOD B.

In Estimating and Surveying Office.—Preparation of estimate.

On building in Course of Construction.—Its location, character and problems.

In the Joinery Mills (under the works manager).—Preparation of joinery work.

In Prime Cost and Accountancy Department.—Analysis of costs.

In Office and on Building (under the measuring surveyor).—Preparation of the final account.

PERIOD C.

In Estimating and Surveying Office.—Preparation of estimate.

On Building in Course of Construction.—As for Period B.

In the Office (under the buyer).—Buying materials; Placing orders and sub-contracts; Transport facilities; Visits to manufacturing works to learn something of manufacturing processes and costs, and material supply possibilities of areas.

In the Office and on the Building.—Preparation of final account.

PERIOD D.

In the Secretary's Office—Revision; Correspondence; Disputes; Arbitrations; Accountancy.

In the Office (under the outside manager or director).—Managerial control; co-ordination of works in progress.

In the Office.—Personal supervision.

Under that scheme the student's starting-point was an appreciation of the organisation at the back of the business and the conditions within which it operated. In each of the periods he would have an opportunity of making a critical and well-informed survey of an important section of a contract, in addition to learning something of the machinery of a contract from its inception to its completion. How far such a scheme would be generally practicable it was difficult to say, but some such scheme seemed necessary to encourage the entry into the industry of the right type of youth and to secure for him that opportunity for development on broad lines which was so desirable before the stage of departmental specialisation was reached.

A JOINT COUNCIL FOR THE BUILDING TRADE

By S. STRANKS (*Organiser, Amalgamated Union of Building Trade Workers*).

THERE are certain forces in human affairs which, in spite of prejudice, vested interest, indifference, and ignorance, are always operating to bring about change, economic factors, the spread of education, and other forces contribute to this end. This state of evolution recognises no limit to human progress. There is always room for differences as to the wisest course to direct these desired changes, but the main difficulty is due to our being wedded more or less to our personal interests and prejudices. Just as the individual reflects this particular phase, so employers' and operatives' organisations are prone to become victims to the same factors, but in all cases these eventually have to give way to the common good. But there is this difference between the individual and associated effort, that the latter force quickens the rate of progress. Certain phases of associated effort have indulged, and as reflected in present building trade dispute do indulge, in the a species of warfare which any intelligent person would much prefer to avoid. In face of facts pertaining to present conflicting economic and social life, many resign themselves in a philosophical manner to such warfare as being a mere phase in evolution; if our mental outlook does not respond to a higher plane in settling our differences, then we must go through the bitter experience till we embrace a more reasonable and rational policy.

Can the different interests in the building industry mark their experiences, coupled with a frank recognition of differences engendered, and centre on the idea of a revival of a Joint Industrial Council as a medium of threshing out questions pertaining to the industry and arriving at decisions aiming at the common good? Before answering this question it is essential to appreciate certain fundamental facts which are a forerunner of the present difficulty.

The fundamental difference is due to the employers and operatives being divided into two classes. It is no use ignoring this fact; society has created this condition, and as a result the employer is looked upon as the captain of industry and all it implies; but past history suggests that this view will have to give way. There are fundamental differences of opinion which time will work out, but pending this operation there are reforms in our industry which call for practical adjustment; hence the need for a mutual ground whereby these matters can be decided.

If we turn to the operative of the present day we find he is evolving an outlook which is making a claim for a higher status of life; he is out for higher wages and other matters of material benefits, but above all, he is gradually taking up an attitude of resentment against the idea of being a mere accommodation to a power which is the outcome of the mental outlook of past generations.

Due appreciation having been given to the fundamental differences referred to, does any ground exist upon which we can base any hope that through a Joint Industrial Council good can accrue? Can such a channel assist all parties to bring about a solution of conflicting ideas and principles by the power of reason rather than force? Certainly the last venture does not impress those who took part in its deliberations; it became charged with prejudices which gave small chance for reasonable and tolerant minds to prevail. The trade unions in the building industry will not embark on a similar venture without having some assurance that time and money spent on it will be productive of good. Further, if such a body is to succeed it must be inspired with a proper spirit. There must be many in both camps impressed with the need of such a body. May I remind all who are obsessed with the idea that such a body would merely resolve itself into a useless compromising machine, that this view means that logically no representative assembly should survive? The House of Commons, Borough Councils, and other administrative bodies have precisely the same difficulty, but the people demand they get on with the business. Cannot the building industry say the same? We have to find some way out of the present chaotic conditions. Which is it to be—force or reason?

There are practical questions on which a Joint Council could be of great service, and Mr. Stoker, K.C., is to be commended for ventilating this matter in your columns. He refers to the question of apprentices; is it beyond the bounds of possibility to evolve a scheme that will place this question beyond conflicting interests? If there is to be a revival of that real interest in apprenticeship that is desired, the question has to be approached from a different angle altogether from the past, and a much broader outlook must be brought to bear on this question.

In face of the failure of agreements to establish a rational system of mess-rooms on jobs, some action must be taken to work out a method by which a uniform standard of accommodation whereby the health and comfort of the worker are secured. There is no tangible reason for negligence in providing this important need. If efficiency is to be attained, then the first consideration should be the creation of conditions which conduce to such. A Joint Industrial Council ought to project a uniform standard for guidance in this matter.

Again, take preventive measures for the protection of life and limb, and disease; surely all these matters ought to be considered and measures adopted to obviate suffering and waste of money.

Surely the time has arrived when the vexed question of overtime should be removed from the misunderstanding which obtains. On economic grounds, and in the interest of the community, the continual jarring on this question does little credit to any of us. I believe it is possible to define a policy that would remove our differences and make some new departure which would redound to the credit of all. Again, on this, there is a fine field for a Joint Council.

Cannot something be done in the direction of projecting uniform rules for establishing Works Committees? I know evidence on some jobs indicated a lack of sense of proportion of things on the part of some operatives where Works Committee existed, but individuals soon found their level. Here is a field for the joint consideration of all interests involved mutually to agree to the recognition of Works Committees with properly-defined functions.

Are we to display to the community that we jointly have no ideas by way of perfecting education, technical and otherwise? With the expert knowledge in the industry there should be a sphere of action which would be of value on these highly-important subjects. This also touches the value of a Joint Council on all matters of a legislative, or administrative, character, in the domain of imperial and local government.

A Joint Industrial Council should be thoroughly representative of all engaged in the

building trade—architects, builders, surveyors, operatives, general foremen, sub-contractors, clerks of works, and would provide a council that with careful selection of the representatives ought to be of immense value.

Realising as I do the stagnant pool of negation that obsesses the councils of employers' and operatives' associations, I feel there is a deal of work to be done before we reach agreement. Patronage must recede, suspicion must subside. We are living in an age when organisation is accepted as necessary in social and economic life. The only problem confronting us is the tendency to press the physical to the detriment of the mental factor. Let us examine these forces and see whether without impairing the independence of either it is not possible to achieve success on the lines suggested.

THE BUILDING TRADE DISPUTE.

[We have received the following letters on the present dispute in the building industry.]

SIR,—Mr. W. H. Stoker, K.C., in your issue of July 25, draws attention to the "Misunderstandings between the parties," drawn from the Buckmaster Court of Inquiry Report, and reminds us that a year ago he contributed to your columns the expression of a hope "that some means might be found for resuscitating the Building Trades Parliament." I have many times given voice to the same hope and cannot refrain from joining Mr. Stoker in his present appeal to those in power on both sides to return to the better spirit of 1919–20. Architects have taken a big step forward on the road to unity in the profession; is it too much to hope that in the future they may have a place in a new Building Trade Parliament in which the community shall be represented on the lines I suggested in your columns so long ago as 1914?

In addition to the representatives of the industry—employers and operatives—I suggested that the community should be represented by persons appointed by such bodies as the R.I.B.A., Surveyors' Institution, Institution of Civil Engineers, the Mechanical Engineers, the Chartered Accountants, the Institute of Auctioneers, all more or less interested in the industry, together with such bodies as the Workers' Educational Association, the Working Men's College, National Education Association, Co-operative Wholesale Society, Settlements Association, and Women's Industrial Organisation, all interested for the better conditions of the operatives.

It is useless to discuss in detail the findings of the Court of Inquiry; their conclusions make it quite clear that the bottom of the trouble is "misunderstanding," and a curious want of clearness in the documents which made the Court so "readily understand the failure to realise the position."

It is not possible in reading the report for outsiders to criticise either of the parties without seeming to be biased by preconceived views; and even if one could fix blame on both parties, no good purpose would be served; but one may be permitted to suggest that had the Building Trades Parliament been in existence such misunderstandings would have been impossible. The most "sheltered" of all our great industries, the building trade, is in the best position to show the way to that reconstruction which has been so long promised, and which surely must come if this country is to maintain its position as a world power.

The greatest of all needs in the building trade is "output," and the only way to get it is by contented workers. Wages and conditions can easily be dealt with if we can achieve the maximum possible output; and, in my opinion, the only way to succeed is to revive the Building Trade Parliament and re-create the atmosphere we had in 1919.

Employers are too conservative and let the Diehards lead; the operatives are too rash and let the agitators guide them. The only way out

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/5½	1/5½	1/5½	1/5½	1/5½	1/5	1/5	1/1½
Bath	1/5	1/5	1/6	1/5	1/5	1/5	1/5	1/0½
Bedford	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birkenhead	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/5½	1/5½	1/7½	1/5	1/0½
Bolton	1/5	1/5	1/5	1/5	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/7½	1/7½	1/7½	1/7½	1/5½	1/5	1/5½	1/1½
Bradford	1/5½	1/5½	1/5½	1/5½	1/4	1/4	1/4	1/0
Brentwood	1/4	1/4	1/4	1/4	1/5	1/5	1/5	1/0½
Bridgwater	1/5	1/5	1/5	1/5	1/7½	1/7½	1/7½	1/2½
Brighton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bristol	1/7½	1/7½	1/7½	1/6½	1/6½	1/6½	1/6½	1/2
Burnley	1/6½	1/6½	1/6½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/7½	1/7½	1/7½	1/5	1/5	1/5	1/5	1/0½
Bury	1/5	1/5	1/7½	1/7½	1/7½	1/7½	1/5	1/2½
Cambridge	1/7½	1/7½	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Chatham	1/5	1/5	1/5½	1/5½	1/7½	1/7½	1/7½	1/2½
Chelmsford	1/5½	1/5½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cheltenham	1/7½	1/7½	1/7½	1/7½	1/5	1/5	1/5	1/0½
Chester	1/7½	1/7½	1/5	1/5	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/5	1/5	1/7½	1/7½	1/6	1/6	1/6	1/1½
Colchester	1/7½	1/7½	1/6	1/6	1/7½	1/7½	1/7½	1/2½
Coventry	1/6	1/6	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2
Darlington	1/7½	1/7½	1/7½	1/7½	1/6½	1/7½	1/7½	1/2½
Derby	1/6½	1/6½	1/6½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/5	1/0½
Dudley	1/7½	1/7½	1/5	1/5	1/5	1/5½	1/4½	1/1½
Durham	1/7½	1/7½	1/5½	1/5½	1/5½	1/4	1/4	1/0
E. Glam.(Mon. Vall)	1/5	1/5	1/4	1/4	1/4	1/5½	1/4½	1/1½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/6	1/6	1/6	1/3
Exeter	1/4	1/4	1/6	1/6	1/8	1/8	1/7	1/2½
Folkestone	1/5½	1/5½	1/8	1/8	1/7½	1/7½	1/4½	1/0½
Gloucester	1/6	1/6	1/7½	1/7½	1/4½	1/4½	1/5	1/0½
Grantham	1/8	1/8	1/4½	1/4½	1/5	1/5	1/7½	1/2
Grays	1/7½	1/7½	1/5	1/5	1/7½	1/7½	1/7½	1/2
Grimsby	1/4½	1/4½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Great Yarmouth	1/5	1/5	1/7½	1/7½	1/7½	1/7½	1/4	1/0
Guildford	1/7½	1/7½	1/7½	1/7½	1/4	1/4	1/4	1/0
Halifax	1/7½	1/7½	1/4	1/4	1/5	1/5	1/7½	1/2½
Harrogate	1/7½	1/7½	1/5	1/5	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/4	1/4	1/7½	1/7½	1/7½	1/7½	1/5	1/0½
Hastings	1/5	1/5	1/7½	1/7½	1/5	1/5	1/6½	1/2½
Hereford	1/7½	1/7½	1/5	1/5	1/6½	1/6½	1/6	1/2
Huddersfield	1/7½	1/7½	1/6½	1/6½	1/6	1/6	1/7½	1/2½
Hull	1/5	1/5	1/6	1/6	1/7½	1/7½	1/7½	1/2½
Ipswich	1/6½	1/6½	1/7½	1/7½	1/7½	1/7½	1/6	1/2½
Lancaster	1/6	1/6	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/7½	1/7½	1/6	1/6	1/7½	1/7½	1/6	1/2½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/6	1/6	1/6	1/6	1/7½	1/7½	1/7½	1/2½
Lichfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lincoln	1/9	1/9	1/7½	1/5½	1/9	1/9	1/8	1/2½
Liverpool	1/7½	1/8	1/8	1/8	1/7½	1/7½	1/7½	1/2½
Llanelly	1/8	1/7½	1/7½	1/7½	1/8	1/8	1/7½	1/2½
London	1/7½	1/7½	1/5	1/5	1/7½	1/7½	1/5	1/0½
Loughborough	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Luton	1/5	1/5	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Maidstone	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/6½	1/6½	1/6½	1/6	1/0½
Newport, Mon.	1/6½	1/6½	1/6½	1/6	1/6	1/5	1/5	1/2½
Northampton	1/5	1/5	1/5	1/5	1/5	1/7½	1/7½	1/0½
Norwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/5	1/5	1/2½
Nottingham	1/5	1/5	1/5	1/5	1/5	1/7½	1/7½	1/2½
Oakham	1/7½	1/7½	1/7½	1/7½	1/7½	1/5	1/5	1/2½
Oldham	1/5	1/5	1/5	1/5	1/5	1/6½	1/6½	1/2
Oxford	1/6½	1/6½	1/6½	1/6½	1/6½	1/7½	1/7½	1/2½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/5	1/5	1/0½
Pontypridd	1/5	1/5	1/5	1/5	1/5	1/7½	1/7½	1/2½
Portsmouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/5	1/5	1/0½
Preston	1/5	1/5	1/5	1/5	1/5	1/7½	1/7½	1/2½
Reading	1/7½	1/7½	1/7½	1/7½	1/7½	1/5	1/5	1/0½
Rochdale	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2
Rochester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6	1/1½
Rugby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
St. Albans	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6	1/1½
Sheffield	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/0½
Shrewsbury	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Southend-on-Sea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Stroud	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Swindon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Taunton	1/5½	1/5½	1/5½	1/5½	1/5	1/5	1/5	1/1
Torquay	1/5	1/5	1/5	1/5	1/5	1/6	1/5½	1/2½
Tunbridge Wells	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Wakefield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Walsall	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Wigan	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2
Windsor	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wolverhampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
Worcester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
York								

(For rates of wages in the Building Trade in Scotland, see page 229.

is frank, fearless discussion and willingness to accept a new order, a new system, to meet the needs of a changed world—reconstruction, worked out with goodwill all round for the benefit of all concerned. JOHN E. YERBURY.

SIR,—We should like to direct attention to the proceedings being taken in connection with the agreement required to be signed as a condition of operatives being allowed to return to work in the London area.

On July 10 last we wrote to the National Federation of Building Trade Operatives (London Regional Council), asking for copies of the agreement. Two were forwarded to us on the 11th, with a letter stating: "I am enclosing two copies of the Provisional Agreement required for carrying on work during the present dispute. Will you kindly return same with your signature attached, and I will then return one copy for your own use."

The printed form of agreement refers in paragraphs *a* and *b* to wages, and provides for 1d. per hour increase; paragraph *c* sets out the hours of labour (44 hours per week).

The next paragraph is as follows: "Time lost in consequence of circumstances over which the workers have no control shall be subject to immediate local arrangement between the employer and the London Regional Council of the N.F.B.T.O., such negotiations shall be completed forthwith."

The Bromley builders have agreed to paragraphs *a*, *b* and *c*, but not the paragraph referring to payment for lost time. On Tuesday, last week, a conference was held between the Bromley master builders and the local strike committee, which was also attended by a representative of the London Regional Council. Being asked what would be the procedure after signing the agreement to put into effect the negotiations suggested in paragraph *re* lost time, the delegate stated that what was required was 50 per cent. payment for lost time. That was the demand and unless it was conceded men would not be allowed to work.

It is quite obvious from this statement that there is to be no question of "arrangement" or "negotiation," and it would appear that the signatures to the agreement are being obtained under false pretences. Under these circumstances the builders of this area refuse to sign.

Bromley. PEARCE BROS., *Builders.*

After the break-up of the Conference, as announced in our columns last week, a statement was issued by the National Allied Building Trades Employers denying the statement that the delay in the proposed meeting with the Liverpool representatives was due to obstacles placed by the employers in the way of an earlier meeting. The statement that the employers were trying to "break the operatives' federation" was stated to be equally untrue. An employers' official stated to a Press representative last Saturday that "While deploring the necessity to continue the struggle, we are satisfied that the situation develops steadily in our favour. Our object in posting lock-out notices has been justified, for it brought the issue to a head, and is hastening a settlement. The latest news from our regions is that, even in districts where the posting of lock-out notices was attended with difficulty and hardship for some of our members, it has since been decided to post them nevertheless.

Mr. R. Coppock, general secretary of the National Federation of Building Trades Operatives, was the principal speaker at a meeting of members of that organisation held at Hoxton. He said the representatives of the men were trying, consistent with their general policy, to bring an end to the dispute at the earliest possible moment. They believed that the first call on industry should be for those who were working in it. The reply to the question as to why they had changed their policy from national to regional settlements was that they had had to design a policy which would meet the tactics of their opponents.

On Wednesday a conference was held at which the National Federations and employers and operatives from Liverpool had been invited to attend.

CONTRACTS, COMPETITIONS, &c.

Forsome contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the name of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

AUGUST 9.—**Coychurch (near Bridgend).**—RENOVATIONS.—For renovating the interior of Coychurch parish church. Rectory, Coychurch.

AUGUST 9.—**Doncaster.**—MORTUARY.—For the erection of mortuary buildings in the Guild Hall Yard, for the T.C. Mr. R. E. Ford, 3, Priory-place, Doncaster.

AUGUST 9.—**Farnborough.**—COTTAGES.—For erection of six cottages, for the U.D.C. Mr. J. E. Hargreaves, Surveyor, Town Hall, Farnborough. Deposit £1 1s.

AUGUST 9.—**Navan.**—SHED.—Erection of storage shed, for the Meath C.C. County Surveyor, Navan.

AUGUST 9.—**Rathmines.**—ANNEXE.—For the erection of an annexe to the Technical Institute, for the U.D.C. Mr. F. G. Hicks, architect, 86, Merrion-square South, Dublin. Deposit £1 1s.

AUGUST 9.—**Teddington.**—PAINTING.—For the painting of the external wood and iron work to the houses on the May's and the Udney Park Estates, for the U.D.C. Mr. Marshall Hainsworth, surveyor, Elmfield House, Teddington. Deposit £1 1s.

AUGUST 9.—**Wallingford.**—HOUSES.—For the erection of sixteen working-class dwellings, in Station-road, for the T.C. Borough Surveyor, 12, St. Martin's-street, Wallingford. Deposit £1 1s.

AUGUST 11.—**Barnsley.**—PAINTING.—For painting railings to the Churchfield frontage to Sackville-street, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

AUGUST 11.—**Bretby Hall.**—ALTERATIONS.—For alterations and improvements at Bretby Hall, near Burton-on-Trent, for the Derby C.C. Mr. W. H. Ward (Martin, Martin & W. H. Ward), architect, 106, Colmore-row, Birmingham. Deposit £5.

AUGUST 11.—**Carlisle.**—DEMOLITION.—For the pulling down of a chimney stack at Junction-street, belonging to the Carlisle South-End Co-operative Society, Ltd. Mr. S. W. B. Jack, architect, Lloyds Bank Chambers, Carlisle.

AUGUST 11.—**Cwmamman.**—HALL.—For the erection of workmen's hall, Garnant, Carmarthenshire, seating accommodation about 950. Messrs. H. Herbert & Co., Architects, College-street, Ammanford. Deposit £2 2s.

AUGUST 11.—**Dublin.**—PAINTING, &c.—For painting work and minor structural repairs at Crooksling Sanatorium, Brittas, Co. Dublin, for the T.C. City Treasurer, Exchange Buildings, Lord Edward-street, Dublin. Deposit £1 1s.

AUGUST 11.—**Eldwick.**—PAINTING.—For painting, &c., at Eldwick Sanatorium, near Bingley. West Riding Architect, County Hall, Wakefield.

AUGUST 11.—**Evesham.**—BUILDING.—For erection of brick building at Bergeworth Cemetery, for the T.C. Mr. J. Abbott, borough surveyor, Evesham.

AUGUST 11.—**Hull.**—BUILDINGS.—For providing accommodation for fish merchants, &c., at St. Andrew's Dock, Hull, for the L. & N.E. Railway Co. Mr. Stephen Wilkinson, architect, N.E. Area, L.N.E. Railway Co., York.

*AUGUST 11.—**London, S.W.6.**—CLEANING AND PAINTING, &C.—Cleaning, painting, and repair works at the Medical Superintendent's House, Western Fever Hospital, Seagrave-road, Fulham, S.W.6, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

AUGUST 11.—**Port Glasgow.**—FENCING.—For timber fences and gates in connection with the erection of 27 blocks of houses, for the T.C. Mr. Andrew Paton, Town Clerk, Port Glasgow.

AUGUST 11.—**Rathmines and Rathgar.**—HOUSES.—Erection of 16 houses at Church-place, and works incidental thereto, for the U.D.C. Mr. Edwin Bradbury, F.R.I.A.I., 13, South Frederick-street, Dublin. Deposit £2 2s.

AUGUST 11.—**Watford.**—BRIDGE.—For the reconstruction of the bridge over the River Gade in Cassiobury Park, for the T.C. Mr. D. Waterhouse, Borough Engineer, Watford. Deposit £2 2s.

*AUGUST 12.—**Islington, N.1.**—PAINTING, POINTING, &C.—Painting, pointing, and repairing Thornhill Bridge, Caledonian-road, also for painting and repairing the Clock Tower, Highbury, for the Metropolitan Borough Council of Islington. Borough Engineer, Municipal Offices, Tyndale-place, Upper-street, N.1.

AUGUST 12.—**Kensington, W.**—PAINTING.—Internal painting at the Post Office Savings Bank, Blythe-road, Kensington, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

AUGUST 12.—**London, S.E.16.**—CONVERSION OF INSTITUTION.—Conversion of Parish-street Institution into flats for the Borough Council of Bermondsey. Mr. Fredk. Ryall, Town Clerk, Town Hall, Spa-road, S.E.16. Deposit £2 2s.

AUGUST 12.—**Manchester.**—LANTERN.—For the construction of a new lantern in roof of second-class swimming bath at New Islington Baths, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

AUGUST 12.—**Plymouth.**—ALTERATIONS.—For alterations and additions to sanitary accommodation at Union-street Schools, for the T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth. Deposit £2 2s.

AUGUST 12.—**Saffron Walden.**—PAINTING.—For painting houses at various places, for the R.D.C. Mr. A. E. Pittstow, Saffron Walden.

AUGUST 12.—**Southall-Norwood.**—COTTAGES.—Erection of three cottages (concrete block construction) at Adelaide Dock, Endsleigh-road, Southall, for Southall-Norwood Urban District Council. Mr. J. B. Thomson, Assoc.M.Inst.C.E., Chartered Civil Engineer, Engineer and Surveyor, Town Hall, Southall.

AUGUST 12.—**Workington.**—HOUSES, &C.—Several works required in the erection and drainage of fifty houses, as a first instalment of a proposed scheme of five hundred, in connection with the Salterbeck Housing Scheme (Contract No. 2), for the Corporation of Workington. Mr. H. B. Williams, Borough Engineer and Surveyor, Town Hall, Workington. Deposit £2 2s.

AUGUST 13.—**Goole.**—GARAGE.—For the erection of garage, workshops, &c., for the U.D.C. Mr. J. H. Castle, Surveyor, Council Offices, Goole. Deposit £2.

AUGUST 13.—**London.**—EXTENSION BUILDING.—Extension of the General Post Office (South), for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

AUGUST 13.—**London, N.1.**—FLATS.—Erection of 132 flats on a site between Laycock-street and Highbury Station-road, Upper-street, Islington, N.1, for the Council of the Metropolitan Borough of Islington. Mr. E. C. P. Monson, F.R.I.B.A., Finsbury Pavement House, 120, Moorgate, London, E.C.2. Deposit £5.

AUGUST 13.—**London, S.W.10.**—DECORATION AND REPAIRS.—Painting, decoration and repairs at the Infirm Women's Wards, &c., in the Workhouse, 267, Fulham-road, S.W.10, for the Guardians of the City of Westminster Union. Mr. W. J. Lickley, Clerk to the Guardians, Guardians' Offices, Princes-row, Buckingham Palace-road, S.W.1.

AUGUST 13.—**Pontefract.**—PAINTING.—For the inside painting at the Assembly Rooms, for the T.C. Mr. J. E. Pickard, Borough Surveyor, Pontefract.

AUGUST 13.—**Tredegar (Mon).**—BUILDING MATERIALS.—Supply of building materials, &c., required for the erection of new piggeries at the Institution at Tredegar, for the Guardians of the Bedwellty Union. Mr. William Hall, Clerk to the Guardians, Union Offices, Tredegar, Mon.

AUGUST 13.—**Wellington (Salop).**—HOUSES.—For erection of 24 pairs of houses, for the U.D.C. Mr. G. H. Connor, Surveyor, Council Offices, Wellington.

AUGUST 14.—**Dublin.**—REPAIRS, &C.—For repairs and decoration, &c., to Kilmainham Courthouse, for the C.C. By order, Seamus Ua Laoidhleis, An Runaidhe. Deposit £1.

AUGUST 15.—**Annan.**—HOUSES.—Erection of two four-apartment houses and four three-apartment houses at Addison-place, for the T.C. Mr. J. B. Gladstone, architect, 4, Bruce-street, Annan.

AUGUST 15.—**Dewsbury.**—WALL.—For the demolition of property at Hill Head Farm, and the rebuilding of a length of boundary wall. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury.

AUGUST 15.—**Tipton, Staffs.**—ALTERATIONS.—Alterations to the Employment Exchange, 37, Owen-street, Tipton, Staffs, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

AUGUST 16.—**Chopwell.**—ALTERATIONS.—For alterations and additions at Chopwell ex-Servicemen's Social Club, Ltd. Mr. J. Johnson, Secretary, at the Club.

AUGUST 16.—**Edlington.**—POINTING.—For pointing brickwork and general repairs at Edlington Council School, Mr. L. J. Blackburn, Divisional Clerk, Education Offices, 20, Christ Church-road, Doncaster.

*AUGUST 16.—**Ilfracombe.**—ADDITIONS.—Additions to 44, High-street, Ilfracombe, for Mr. Vince. Mr. Allen T. Hassell, F.R.I.B.A., Architect and Surveyor, 8, Market-square, Ilfracombe.

AUGUST 16.—**Tadcaster.**—HOUSE.—For the erection of a caretaker's house at sewage works, for the R.D.C. Mr. H. M. Driver, surveyor, Garforth, near Leeds.

AUGUST 18.—**Cheadle and Gatley.**—SUB-STATION.—For the erection of a sub-station at Grove-lane, for the U.D.C. Mr. C. H. Wordingham, 33, Brazenose-street, Manchester. Deposit £2 2s.

AUGUST 18.—**Uppingham.**—MEMORIAL.—For taking down and rebuilding the memorial monument at Uppingham. Mr. G. Dolphin, North-street, Uppingham. Deposit £1 1s.

AUGUST 18.—**Winchester.**—PAINTING.—For outside painting at Royal Hants County Hospital, Winchester. Mr. Herbert Maslen, Secretary, Winchester.

AUGUST 19.—**Birkenhead.**—MOTOR BUS GARAGE.—Erection of a motor bus garage and storage shed in the Tramway Depot yard at Laird-street, Birkenhead, for the County Borough of Birkenhead. Mr. Chas. Brownridge, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Birkenhead. Deposit £2 2s.

AUGUST 19.—**Cannock.**—HOUSES.—For the erection of 17 pairs of non-parlour type houses at Hilton (Dark-lane) site, for the R.D.C. Mr. H. M. Whitehead, Director of Housing, Penkridge, Stafford. Deposit £5.

AUGUST 19.—**Wellingborough.**—LAVATORIES.—For the erection of women's lavatories at the Union Workhouse, for the B.G. Messrs. Sharman, Moore & Morley, architects, Sheep-street, Wellingborough.

AUGUST 19.—**Wigan.**—ALTERATIONS AND ADDITIONS.—Alterations and additions to the Post Office and Sorting Office, Wigan, for the Commissioners of His Majesty's Office of Works. Contracts Branch,

H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary).

✱AUGUST 20.—**Crewe.**—HOUSES.—For the erection of 20 houses on the Alton-street site, for the Borough of Crewe Municipal Housing Committee. Mr. E. G. Timbrell, M.I.Struct.E., &c., Architect to the Housing Committee, Municipal Buildings, Crewe. Deposit £2 2s.

AUGUST 21.—**Birr.**—PLASTERING.—For the external plastering of cottages in the Birr No. 1 Rural District. Secretary, Sailors and Soldiers' Department, Colonial Office (Irish Branch), 30, Lower Fitzwilliam-street, Dublin. Deposit £1 1s.

AUGUST 21.—**Durham.**—HOUSES.—For the erection of 48 houses at Lowes Barn, for the Durham County Garden Villages, Ltd. Mr. S. Wilkinson, architect, Irving House, Westgate-road, Newcastle.

AUGUST 22.—**Clydebank.**—PAINTING, &C.—For painter, fencing, and hedging work in connection with erection of houses, for the T.C. Town Clerk, Municipal Buildings, Clydebank. Deposit £1 1s.

AUGUST 25.—**Aylesbury.**—COTTAGES.—For erection of 36 cottages in four contracts, for the T.C. Mr. Wm. H. Taylor, Borough Engineer, Town Hall, Aylesbury.

AUGUST 25.—**Hemsworth.**—EXTENSION.—For extensions to secondary school, for the West Riding E.C. Education Dept., County Hall, Wakefield.

AUGUST 25.—**Hertfordshire.**—COUNTY SCHOOL.—Erection and completion of a new County Council School, to accommodate 120 scholars, at Hunsdon, near Stanstead Abbots, for the Hertfordshire C.C. County Surveyor's Office, Hatfield, between the hours of 10 a.m. and 4 p.m., except on Saturdays. Deposit £1 1s.

AUGUST 25.—**Morley.**—HOUSES.—For the erection of 48 houses and for the several other works in connection therewith on the Middleton-road Housing Estate, for the T.C. Mr. F. Turner, Borough Engineer, Town Hall, Morley. Deposit £1 1s.

AUGUST 26.—**Bathgate.**—FLOORING.—Laying hall with maple flooring for the Bathgate Co-operative Society, Ltd. Managing Secretary, Co-operative Society, Jarvey-street, Bathgate.

AUGUST 26.—**Bradford.**—PAINTING.—For (1) internal and external painting, Rawson-place Market and James-street Market; (2) vacuum cleaning work, Rawson-place Market and James-street Market; (3) external painting to shops and warehouses, Nos. 71 to 83, Diamond-street. City Architect, Town Hall, Bradford.

AUGUST 26.—**Cardiff.**—POST OFFICE.—For the erection of a head Post Office for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

✱AUGUST 26.—**Wallasey.**—HOUSES.—For the erection of 56 houses on the Poulton-road and Surrey-street housing site, for the C.B. Mr. L. St. G. Wilkinson, M.Sc., A.M.I.C.E., Borough Engineer and Surveyor, Town Hall, Wallasey. Deposit £1 1s.

✱AUGUST 27.—**Chester.**—BUILDING WORKS.—Erection and completion of new dairy and hostel buildings at the Reaseheath School of Agriculture, near Nantwich, for the County of Chester. Mr. H. Beswick, F.R.I.B.A., County Architect, Newgate-street, Chester. Deposit £2 2s.

✱AUGUST 27.—For cleaning, painting and repairs at T.S. *Exmouth* Infirmary, Grays, Essex, Queen Mary's Hospital, Carshalton, Surrey, Princess Mary's Hospital, Margate, Leavesden Mental Hospital, King's Langley, Herts., Fountain Mental Hospital, Tooting, S.W.17, South Eastern Ambulance Station, New Cross-road, S.E.14, Paddington Casual Ward, Woodfield-road, Harrow-road, W., St. Luke's Hospital, Lowestoft, for Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 for each work.

✱AUGUST 27.—**London and Margate.**—VARIOUS WORKS.—For erection of new offices at South Western Ambulance Station, Landor-road, Stockwell, S.W.9; repairs to concrete paving at North-western Ambulance Station, Lawn-road, Hampstead, N.W. Erection of new concrete sun platforms at Princess Mary's Hospital, Margate; erection of new concrete boundary wall at Mead Works, Carnwath-road, Fulham, S.W.6; building repairs at Hackney Casual Ward, Gainsborough-road, Hackney Wick, N.E.; and minor alterations in laundry at Brook Hospital, Shooter's Hill, S.E.18, for Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 each work.

✱AUGUST 27.—**Tooting, S.W.17.**—SLATING WORKS.—For slating works at Tooting Bec Mental Hospital Extension, Church-lane, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4.

✱SEPTEMBER 2.—**Birmingham.**—REPAIRS, &C.—For execution of ordinary works and repairs at The Beacon and Lickey Hotels, for the Commissioners of His Majesty's Works, &c. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit 10s. 6d.

✱SEPTEMBER 2.—**Orpington.**—REPAIRS, &C.—For the execution of ordinary works and repairs at buildings in the Orpington district, for the Commissioners of His Majesty's Works, &c. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit 10s. 6d.

SEPTEMBER 6.—**Congleton.**—SCHOOL.—For the erection of an elementary school for 600 scholars at New-street, for the T.C. Mr. J. H. Walters, architect, Moody-street, Congleton. Deposit £2.

NO DATE.—**Consett.**—OUTHOUSES, &C.—For (1) demolitions of existing and building of new outoffices, &c., to 82 cottages; (2) sewage and streetmaking. Architect, Consett Iron Co., Consett.

✱NO DATE.—**Sanderstead.**—Erection of a small house at Sanderstead, near Purley. Mr. R. A. Hinds, F.R.I.B.A., architect, 8, Duke-street, Adelphi, W.C.

NO DATE.—**Torquay.**—HALL.—For the erection of parish and memorial hall at St. Marychurch, Torquay. Messrs. Appleton & Bruce, architects, Scala Chambers, Torquay. Deposit £4 4s.

FURNITURE, MATERIALS, etc.

AUGUST 11.—**Litherland.**—KERB.—For the supply of 520 lin. yds. of Haslingden kerb to the U.D.C. Mr. Geo. Ponsford, Surveyor, Council Offices, Sefton-road, Litherland.

AUGUST 16.—**Bootle.**—FLAGS.—For 3,500 square yards of concrete flags, for the T.C. Borough Engineer, Town Hall, Bootle.

AUGUST 28.—**Lambeth.**—MATERIALS.—For highway materials for six months, for the B.C. Mr. T. Cattlin, Borough Engineer, Town Hall, Brixton Hill, S.W.

ENGINEERING, IRON AND STEEL.

AUGUST 9.—**Wokingham.**—BRIDGE.—For construction of reinforced concrete bridge at Embrook, for the R.D.C. Mr. A. H. Prince, Surveyor, Council Offices, Wokingham. Deposit £2 2s.

AUGUST 11.—**Near Builth Wells.**—BRIDGE RECONSTRUCTION.—For the reconstruction of Abergwessin Bridge, for the R.D.C. Mr. R. Willings Thomas, architect, Llandrindod Wells.

AUGUST 12.—**Manchester.**—TRACK WORK.—For the supply of permanent way special track work. Mr. Henry Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester. Deposit £1 1s.

AUGUST 12.—**Portsmouth.**—QUAY WALL.—For the construction and maintenance in repair for twelve months of a new quay wall, for the T.C. Mr. Arthur W. Ward, Borough Engineer, Town Hall, Portsmouth. Deposit £3.

AUGUST 16.—**Kidwelly.**—TIDAL GATES.—For the renewal of the tidal gates of Commissioners' Bridge and Culvert, near Kidwelly, by new gates of thoroughly seasoned oak timber, together with the construction of a new culvert, for the Carmarthen C.C. Mr. R. W. Jones, County Surveyor, Carmarthen.

AUGUST 18.—**Clones.**—BRIDGE.—For the reconstruction of a steel underline bridge, between Newbliss and Clones, for the Great Northern Railway (Ireland) Co. Mr. J. B. Stephens, Secretary, Amiens-street Station, Dublin. Deposit £2 2s.

AUGUST 19.—**Birmingham.**—BRIDGES.—(a) Reconstruction of the canal bridge, Tipton-road, Tipton; (b) the construction of a new bridge over the Birmingham canal navigations, Dudley Canal, for the T.C. Mr. Herbert H. Humphries, Engineer, Council House, Birmingham. Deposit £2.

AUGUST 21.—**Tarbert.**—WHARF WORKS.—For works on the passenger wharf and goods quay at Tarbert, Lochfyne. Mr. J. S. Henderson, Clerk to Harbour Trust, The Hollies, Lochgilphead.

AUGUST 25.—**Stalybridge.**—STEELWORK.—Supply and erection of structural steelwork for power station, for the Stalybridge, Hyde, Mossley, and Dukinfield Tramways and Electricity Board. Messrs. W. H. George & Son, architects, Ashton-under-Lyne. Deposit £1 1s.

✱AUGUST 27.—**Tooting, S.W.17.**—GUTTER, &C.—For supply and delivering cast-iron rainwater gutter and down pipes at Tooting Bec Mental Hospital Extension, Church-lane, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4.]

ROAD, SANITARY, AND WATER WORKS.

AUGUST 9.—**Littleport.**—SEWERAGE.—For the construction of a new pumping station and laying pump delivery pipes, &c., in the parish of Little Downham, for the Littleport and Downham Drainage Commissioners. Mr. E. J. Silcock, 25, Victoria-street, S.W. Deposit £5.

AUGUST 9.—**Spenborough.**—CULVERT.—For the reconstruction of a culvert partly under the Wakefield and Halifax main road at Spenborough, for the West Riding C.C. The West Riding Surveyor, County Hall, Wakefield. Deposit £1.

AUGUST 9.—**Torquay.**—GAS MAIN.—For laying an 8 in. high-pressure steel gas main between the Hollacombe and Paignton Works of the Torquay and Paignton Gas Co. Mr. C. G. Dawson, engineer, Gas Works, Paignton. Deposit £1 1s.

AUGUST 10.—**Skegness.**—ROADS.—For street works in Sunningdale and Muirfield drives, Brancaster-drive, and Sea View-road, for the U.D.C. Mr. R. H. Jenkins, Council Offices, Skegness. Deposit £1 1s.

AUGUST 11.—**Barnsley.**—ROADS.—For making up Cawley-place, Smithies, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

AUGUST 11.—**Barnsley.**—SANITARY.—Plumber's work, conversion of privies into water-closets, in the Monk Bretton and Ardsley Districts, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

AUGUST 11.—**Grimethorpe, near Barnsley.**—ROADS, &C.—For carrying out Miners' Welfare Scheme, which includes laying-out site, planting trees, erection of fencing, band stand, shelters, &c. Mr. W. T. Lynam, F.S.I., Surveyor, Hemsworth, near Pontefract.

AUGUST 11.—**Glasgow.**—ROADS.—Widening the eastern section of Paisley-road extending from the boundary of the City of Glasgow at half-way to Lennox-road, for the Renfrew C.C. Messrs. Kyle & Frew, C.E., 227, West George-street, Glasgow. Deposit £2 2s.

AUGUST 11.—**Northwich.**—WATER MAINS.—For laying of eight miles of 5 in., 6 in., 7 in., 9 in., and 12 in. cast-iron water mains &c., for the R.D.C. Mr. John Birtwistle, Winnington-street, Northwich. Deposit £1 1s.

AUGUST 11.—**Paisley.**—ROADS.—Widening the western section of Paisley-road extending from Lennox-road to the boundary of the Burgh of Paisley, for the Renfrew C.C. Messrs. Formans & M'Call, C.E., 160, Hope-street, Glasgow. Deposit £2 2s.

AUGUST 11.—**Panteg.**—ROADS, &C.—(a) Construction of roads and sewers on the housing estate at Kemy, Fawr, Griffithstown; (b) intercepting sewer, for the U.D.C. Mr. H. R. Davies, Surveyor, Council Offices, Pontymoel.

AUGUST 11.—**Whitchurch.**—SEWER.—For the construction of a cast-iron sewage outfall drain and other works for the R.D.C. Mr. W. C. Easdale, 1, Victoria-street, S.W. Deposit £2 2s.

AUGUST 11.—**Wigton.**—SEWERAGE.—For the construction of sewers and sewage purification works at Fletchertown, for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, Newcastle-on-Tyne. Deposit £5.

AUGUST 11.—**Worsborough.**—ROADS.—For widening and improvement of the road at Balk-lane corner, on the Wakefield and Sheffield main road, for the U.D.C. Mr. T. Shield, Surveyor, Saville House, Worsborough Bridge. Deposit £1 1s.

AUGUST 12.—**Daventry.**—SEWERS.—For the laying of 2,300 yards of 6 in., 7 in., and 9 in. sewers, &c., for the R.D.C. Mr. J. B. Williams, Surveyor, Moot Hall, Daventry.

AUGUST 12.—**Polmont.**—ROADS.—For forming new roadway, &c., at Brightons Housing Site, near Polmont Station, for the Stirling C.C. Mr. T. M. Copland, 76, High-street, Falkirk.

AUGUST 13.—**Cleckheaton.**—ROADS.—For the paving with granite setts on reinforced concrete of the Leeds and Elland main road at Westgate, Cleckheaton, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1

AUGUST 13.—**Leeds.**—ROADS.—For (a) paving and concreting, &c., of portions of highways in Meadow-road, Water-lane, The Calls, Armley-road, Swinegate; (b) paving and concreting, &c., of portions of tramway track in Meadow-road; (c) granited rock asphalte surfacing at Swinegate, for the T.C. Mr. J. B. Hamilton, Commercial Manager, 1, Swinegate, Leeds. Deposit £1 1s. each contract.

AUGUST 15.—**Dunmow.**—WATERWORKS, &C.—For sinking borehole, supplying cast-iron pipes, and laying 4,000 yds. of stoneware pipe sewers at Thaxted, for the R.D.C. Messrs. Sands & Walker, Milton Chambers, Nottingham. Deposit £2 2s. each of four contracts.

AUGUST 15.—**Manchester.**—WATER MAINS.—For the laying and jointing of half a mile of 44 in. C.I. pipes connected with the Fourth Pipeline from Thirlmere to Manchester, about one mile north of Lostock Junction, for the T.C. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £3 3s.

AUGUST 15.—**St. Mellons.**—ROADS.—For the improvement of the district road, about half-mile in length, between Pye Corner and the Royal Oak public house, Rogerstone, for the R.D.C. Messrs. Thomas & Morgan, & Partners, 23, Gelliwastad-road, Pontypridd. Deposit £5 5s.

AUGUST 18.—**Barnet.**—ROADS.—For the making-up of Wentworth-road, No. 3 portion, for the U.D.C. Surveyor, Council Offices, Wood-street, Barnet.

AUGUST 18.—**East Riding of Yorks.**—ROADS.—For construction of new roads at Brandesburton, Lissett, Ottringham and Hollym, for the C.C. County Surveyor, County Hall, Beverley. Deposit £2 2s.

AUGUST 18.—**Merton and Morden.**—SEWERS.—For the construction of 3,180 yards run reinforced concrete culverts from 9 ft. to 4 ft. in width; 300 yards run brick culverts, 9 ft., to 8 ft. 6 in. in width; 2,950 yards run concrete and stoneware pipe sewers, &c., for the U.D.C. Mr. G. Jerram, Engineer, Council Offices, Kingston-road, Merton., S.W. Deposit £5.

AUGUST 19.—**Dunfermline.**—SEWERS.—Providing and laying 5,450 lineal yards of 9 in. and 6 in. diameter fireclay pipe sewers, with other works, for the Fife C.C. Mr. H. F. Hodge, District Engineer, County Buildings, Dunfermline. Deposit £2 2s.

AUGUST 20.—**Scunthorpe.**—ROADS.—For the making-up of several streets and 10 ft. roads in the Buckingham-street and Parkinson-avenue areas, for the U.D.C. Mr. W. Farrar, Surveyor, Council Offices, Scunthorpe. Deposit £2.

✱AUGUST 21.—**Edgware.**—SEWER WORK.—For construction of 566 yds. of 12 in. stoneware pipe sewer, together with manholes, &c., at Edgwarebury-lane, for Hendon R.D.C. Mr. H. W. Rackham, Engineer and Surveyor, Council Offices, Stanmore. Deposit £3 3s.

AUGUST 22.—**East Barnet Valley.**—ROADS, &C.—For the construction of roads and sewers on Long-street housing estate, for the U.D.C. Mr. H. York, Surveyor, Council Offices, New Barnet.

AUGUST 25.—**Dunfermline.**—ROADS.—For the widening and reconstruction of Halbeath-road to a width of 60 ft. for a length of 800 yards, for the T.C. Burgh Engineer, City Chambers, Dunfermline. Deposit £2 2s.

AUGUST 27.—**Lambeth.**—ROADS.—For (*a*) laying creosoted deal paving in Dulwich-road, Water-lane, and Westminster Bridge-road; (*b*) laying granited natural mastic asphalte paving in Stockwell-avenue, for the B.C. Borough Engineer, Town Hall, Lambeth, S.E.

✱AUGUST 27.—**London and Sutton.**—ROAD REPAIRS.—For repairs to tar paving at Fountain Mental Hospital, and repairs to roads at The Downs Hospital for Children, Sutton, Surrey, for Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4 Deposit £1 in respect of each work.

AUGUST 27.—**Southborough.**—WATER MAIN.—For the laying of 1,500 yards of 6 in. cast-iron water main, &c., for the U.D.C. Messrs. G. & F. W. Hodson, Bank Chambers, Loughborough. Deposit £5 5s.

AUGUST 27.—**Watford.**—ROADS.—For the reconstruction of Station-road and Woodford-road and part of Queen's-road and Cassio-road, for the T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, Watford. Deposit £2 2s.

AUGUST 30.—**Featherstone.**—ROADS, &C.—For the making of roads and laying of sewers in connection with the erection of 50 houses at Streethouse, near Pontefract, for the U.D.C. Mr. Samuel Chesney, A.R.I.B.A., Council Offices, Featherstone. Deposit £2 2s.

Competitions.

(*See Competition News, page* 200.)

Auction Sales, Tenders, etc.

AUGUST 9.—**Great Bookham, Surrey.**—Mr. C. E. Clark will sell, without reserve, at Eastwick Buildings, Lower-road, Great Bookham, Surrey, timbers, new and bright, and builders' effects. Auctioneers, Beddington House, near Croydon.

✱AUGUST 12, 13 AND 14.—**Cleethorpes.**—Messrs. Riggall & Riggall have received instructions of Messrs. Hewson, Chapman & Co., Ltd., Grimsby, the timber contractors, to the Lincolnshire Agricultural Society, to sell, upon the Agricultural Show Ground, Cleethorpes, a quantity of selected redwood timber, floorings, deals, battens, scantlings, and boards, &c. Auctioneers, Old Market-place, Grimsby.

AUGUST 12.—**Hayes, Middlesex.**—Mr. F. H. Clark will sell, absolutely without reserve, at the National Filling Factory, Hayes, Middlesex, new and second-hand timber and building material, machines and lorries. Auctioneers, Railway Wharf, York-road, Wandsworth.

✱AUGUST 12.—**London, S.W.**—Messrs. Veryard & Yates, F.A.I., will sell, without reserve, timber and building materials (from demolition of aircraft buildings), at 255, Clapham-road, at 1.30 p.m. Auctioneers, 365, Norwood-road, S.E.27.

✱AUGUST 13.—**Upper Norwood.**—Messrs. Veryard & Yates will sell by auction, without reserve, building material (from demolition of the Mansion), at "Hazlewood," Church-road, at 1.30 p.m. Auctioneers, 365, Norwood-road, S.E.27.

✱AUGUST 14.—**Colliers Wood, Merton.**—Messrs. Veryard & Yates, F.A.I., will sell, without reserve, building materials to clear sites for C. & S.L. Railway, High-street, on Mr. A. T. Harris's ground, at 1.30 p.m. Auctioneers, 365, Norwood-road, S.E.27.

AUGUST 20.—**Peckham, S.E.15.**—Mr. C. E. Clark will sell, without reserve, at Rollin's Wharf, Canterbury Bridge, Peckham, S.E.15, large quantities of prime new timbers (landed and piled away to length). Auctioneers, Beddington House, near Croydon.

✱AUGUST 28.—**London, E.**—Messrs. Weatherall & Green will sell, at 68, Cambridge-road, Mile End, E. (owners retiring from business), builders' material, plant, machinery, and office furniture. Auctioneers, 22, Chancery-lane, W.C.2.

PRELIMINARY ANNOUNCEMENT. — **London, W.**—Messrs. Knight, Frank & Rutley will sell, in a number of lots, in the Hanover-square Estate Room, in September (unless previously sold privately), a freehold building estate known as Broadfields Manor, Edgware, about 273 acres. Auctioneers, 20, Hanover-square, London, W.1.

NO DATE.—**London, W.1.**—Messrs. Knight, Frank & Rutley will sell corner site in the West End, having a frontage of 73 ft. to Charing Cross, and a return frontage of 218 ft. to the north and east sides of Craig's-court, site area, 19,000 sq. ft., known as Cox's Bank, Charing Cross. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

AUGUST 8.— **Beverley.** — JUNIOR ARCHITECTURAL ASSISTANT.—Junior architectural assistant required by the East Riding of Yorkshire C.C. County Architect, County Hall, Beverley.

AUGUST 9.—**Bedford.** — Architectural Assistant required in the Borough Engineer and Surveyor's Department by the Bedford Borough Council. Mr. N. Greenshields, Borough Engineer and Surveyor, Town Hall, Bedford.

AUGUST 9.—**Leicester.**—Chief Architectural Assistant in the Housing Department required by the City of Leicester. Mr. J. S. Fyfe, A.R.I.B.A., Housing Architect, Wyggeston House, 18, Highcross-street, Leicester, endorsed "Chief Architectural Assistant."

AUGUST 9.—**Leicester.**—CLERK OF WORKS.—Clerk of works required by the Housing and Town-Planning Committee of the Leicester City Council. Mr. J. S. Fyfe, Housing Architect, Wyggeston House, 18, Highcross-street, Leicester.

AUGUST 9.—**Stafford.**—Town-Planning Assistant required by the Borough of Stafford. Mr. W. Plant, A.M.I.C.E., F.S.I., Borough Engineer and Surveyor, Borough Hall, Stafford.

AUGUST 11.—**Birmingham.**—Town-Planning Assistant Surveyor in connection with the work of Regional Planning in their area required by the Midland Joint Town-Planning Advisory Council. Mr. Herbert H. Humphries, M.Inst.C.E., Surveyor to the Council, Council House, Birmingham.

✱AUGUST 12.—**Oldham.**—Designer and Superintendent of Works required on the Staff of the Electricity Committee of the County Borough. Mr. F. L. Ogden, Borough Electrical Engineer, Greenhill Electricity Offices, Oldham.

AUGUST 16.—**Leeds.** — INSTRUCTOR.—Instructor in studio design required by the Director of Education, at the Leeds School of Art, Department of Architecture. James Graham, Director of Education, Education Department, Calverley-street, Leeds.

✱AUGUST 22.—**Swansea.**—Lecturer and Instructor in Building Subjects required by Swansea Education Committee. Mr. T. J. Rees, Director of Education, Education Offices, Dynevor-place, Swansea.

✱AUGUST 28.—**Liverpool.**—Chief Architectural Assistant required by the Finance Committee of the City of Liverpool. The Land Steward and Surveyor, Municipal Buildings, Liverpool.

✱SEPTEMBER 1.—**Greenwich.**—Architectural Assistant, Commercial Clerk, and Grade "A" Clerk required by the Metropolitan Borough of Greenwich. Mr. Frederick J. Simpson, Town Clerk, Town Hall, Greenwich-road, S.E.10.

SEPTEMBER 9.—**London, S.E.1.**—TECHNICAL ASSISTANT.—Technical (engineering) assistant on the permanent staff in the Architect's Department required by the L.C.C. Clerk of the Council, The County Hall, Westminster Bridge, S.E.1., with stamped addressed foolscap envelope.

✱NO DATE.—Architectural Draughtsmen required for temporary employment in Government Departments. Joint Substitution Board (Treasury and Ministry of Labour), Montagu House, Whitehall, S.W.1.

✱NO DATE.—Quantity Surveyors and Surveyors' Clerks wanted for temporary duty under the Royal Engineers at Home Stations and on the Rhine. Under-Secretary of State, War Office (F.W.4), London, S.W.1.

PROPOSED NEW BUILDINGS & OTHER WORKS

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ACCRINGTON.—Additional sanitary accommodation is to be provided at the Grammar School, at a cost of £500.

ARLEY.—Plans have been prepared by the Warwick County Architect for a school for 400 on a site at Gun Hill.

ATHERSTONE.—Representations are being made to the C.C. for the reconstruction of the Coleshill-road canal bridge. Dry rot has been discovered in the judge's room at the Assize Court, and remedial measures have been authorised.

BARKING TOWN.—Suggested relief schemes under consideration by U.D.C. include the formation of the banks of streams and improvement of the land adjoining the Mayesbrook Meadow, the widening of Longridge-road, and a new road from Ripple-road to the Fairecross Estate. The Council is urging the completion of the Barking-East Ham bye-pass in order that the Thames-side housing and development may be facilitated. Plans passed: Celluloid factory at West Bank for River Roden Co.; shop and premises, Ripple-road, for Messrs. Mann, Crossman & Paulin. The Council propose to sell four acres at Upney Farm for a hospital to be erected by the Barking Cottage Hospital Committee.

BASLOW.—The U.D.C. proposes to build 16 additional houses.

BELFORD.—Plans passed by R.D.C.: Semi-detached houses at Seahouses, for E. Fordy & Son.

BINGLEY.—Plans passed by U.D.C.: Bungalow Sheriff-lane, Eldwick, for Mr. T. H. Stephenson; conversion of Hollings Farm, Low Springs, into two houses; warehouse, Station-road, Wilsden, for Messrs. H. Drake & Son; pair of semi-detached villas, Beck-lane, for Messrs. W. & S. Bradley; bungalow, Beech-street, for Mr. Albert Bolton; residence, Park-road, for Mr. J. Yellowlees; bungalow, Primrose Hill, for Messrs. H. & A. G. Nutter; 10 houses at Crossflats, for the Bingley U.D.C.; house, Beech-street, Bingley, for Mr. A. Bolton.

BIRKENHEAD.—The T.C. has asked a committee to report on a proposal to construct a model yacht and paddling lake on the Boothby Estate, at an estimated cost of £4,220. The B.S. is to prepare a report in regard to the proposed art gallery on the island site. Plans passed:—Pair of semi-detached houses on the north side of Bedford-drive near Bebington-road; house between Nos. 53 and 57, Cavendish-drive; Lascar Mission Hall and house, Cleveland-street; six pairs of semi-detached houses on the northerly side of Bebington-road.

BIRMINGHAM.—The T.C. proposes the construction of three two-story pavilions, nurses' home, and two isolation wards at Little Bromwich Hospital, at an estimated expenditure of £108,460.

BRADFORD.—The Sites, Works and Finance sub-Committee of the E.C. has given instructions to the City Architect to prepare sketch plans on new lines, with estimate for a Secondary school on a site at Bolling Hill. The City Council propose to cover the Idle Hill, Gilstead and Thornton Moor Reservoirs with reinforced concrete, at a cost of £10,000.

BRIDLINGTON.—Plans passed by T.C.: Mr. C. L. Waite, new road on the Priory Estate, for Mr. C. L. Waite; Mr. C. F. Johnson, garages, Hilderthorpe-road, for Mr. H. Fitch; Mr. C. F. Johnson, house, Kingsgate, for Mr. T. Flowers; Mr. C. L. Waite, house on the Priory Estate, for Mr. W. Witting; Mr. J. R. Earnshaw, house, Brookland-road, for Mr. H. F. Hird; Mr. C. F. Johnson, house, Fortyfoot-road, for Mr. J. Burrell.—The East Riding E.C. are going to be asked to consider a scheme for the extension of the Grammar School and the High School for Girls, and also to consider the question of the provision in the near future of an intermediate school or schools.

BRIGHTON.—Plans passed: Four houses, Hollingbury-road, for C. T. James; six houses, Roedale-road, C. Newman & Sons; 14 houses, Hollingdean-terrace, A. G. Lower; depot, corner of Dawson-terrace and Freshfield-road, Anglo-American Oil Co.; 19 houses, Dudley-road, J. T. Segrue; house and outhouse, Reigate-road, F. Duncan; The Preston Park police station is to be remodelled at a cost of £1,000. The Housing Committee recommends the erection of 48 flats at Loder-street, at a cost of £25,440. The purchase is recommended of the remainder of the Moulsecoomb Estate, at a cost of £27,500, with a view to utilisation for present and future municipal purposes.

BRISTOL.—Six houses in Berkeley-street, derelict under closing orders, are to be improved by the T.C., at a cost of about £1,000. The reconstruction is suggested of the washhouses at the Weir-street Baths. The T.C. has now acquired the whole of the College Green site, which is required for municipal offices. Street improvements are proposed at a total cost of £19,000. Property is to be acquired to carry out the Eugene-street area reconstruction scheme.

CHADDERTON.—Lancashire C.C. proposes the appointment of a sub-committee to confer with Oldham T.C. as to the provision of a secondary school for Chadderton and the neighbouring area.

CHELTENHAM.—Plans passed by T.C.: J. B. Hiron, house, Whaddon-lane; R. C. Swabey, store buildings, New-street; Cheltenham Education Committee, school buildings, St. Peter's; Cheltenham Original Brewery Co., steel and concrete garages, Dunalley-street; Mrs. Cornock, house, London-road; Cheltenham Education Committee, school building, St. Peter's; Mrs. Griffin, house, Old Bath-road.

See also our List of Contracts, Competitions, etc.

CLIFFORD.—The Warwickshire C.C. proposes the widening and improvement of Clifford Chambers bridge, at a cost of about £10,000.

COCKERMOUTH.—A secondary school is being recommended to the Cumberland C.C. by the Education Committee.

COLESHILL.—A proposal for a public hall and institute has now been agreed to, and the Meriden R.D.C. have arranged for office accommodation to be provided for it at the public hall.

COVENTRY.—With the support of the M.T. the Warwickshire County Surveyor has prepared a scheme for a road to enable the through traffic on the Birmingham–Coventry–London main road to avoid the narrow congested streets of the town. In this connection it is reported that considerable and rapid development is taking place in the Earlsdon area at the south-west of Coventry, and to regulate development the Warwick R.D.C. is preparing a town-planning scheme. The road will cost £130,000.

CROYDON.—The T.C. has agreed with the Southern Railway for the widening and improvement of St. James'-road bridge, at a cost of £7,700, in addition to £2,575 for road works. The Governors of the Whitgift Foundation propose the erection of a new school for 500 boys, with an extension scheme for accommodation for another 100 later. Plans passed: House, Pollard's Hill, for Mr. A. Monk; boiler house, Wingwall-road, for Messrs. Young & Mackintosh; 24 houses, The Close, Norbury, for Messrs. Young & Mackintosh; 15 shops and living rooms, Green-lane, for Mr. W. G. Ingram; four houses and shops, London-road, for Mr. W. P. Meller; two houses, Warham-road, for Messrs. A. W. & H. J. Linfoot; house, Norbury-avenue, for Messrs. R. Kendall, Ltd.; four shops and flats, Brighton-road, for Messrs. Chart, Son, & Reading; two houses, Blake-road, for Mr. R. J. Sadler; additions to parish hall, Bingham-road, for Mr. H. N. Dering; seven houses, Buller-road, for Messrs Scratchley Bros.; house, Addiscombe-road, for Mr. P. Richardson; hall, Shirley-road, for Mr. P. Richardson; two houses, Preston-road, for Mr. W. Cowley; three houses, Collier's Water-lane, for Mr. P. Richardson; two houses, Alton-road, for Mr. H. St. John; six houses, Mersham-road, for Mr. G. A. Wall; house, Woodbury Close, for Mr. H. P. Hawkes; house, Norbury-avenue, for Messrs. E. Batley & Sons; house, Manor-way, for Mr. J. S. Thompson; four houses, Lodge-road, for Mr. H. St. John; seven houses, Gonville-road, for Mr. L. White; 66 houses, Croindene-road, Upwood-road and Lloyd-avenue, for Mr. S. H. Laver.

DONCASTER.—It has been decided to proceed with the building of the new Infirmary on the Thorn-road site.

DUBLIN.—Plans passed by T.C.: West-road, 62 houses, St. Barnabas Public Utility Society; Seafield-road, Clontarf, bungalow, Mr. P. O'Kelly; D'Olier-street, 25, Leinster Market, store, Messrs. J. Dunne; 91-92, Benburb-street, shops and flats, Mr. J. Meagher; 19, Shaw-street, stores, Mr. E. Richardson; Loftus-lane, conversion of stables into factory, Messrs. Williams & Woods; "Silverdale," Inchicore, two houses, Mr. J. Thompson; Rutledge-terrace, 48, Hamilton-street, shop, Mr. John O'Connor; 18, Phibsborough-road, rebuilding, Mr. Maguire; 16-17, Chancery-street, store, Mr. T. J. Murphy.—At a special meeting of Dublin County Council, the draft county housing scheme, under the Housing and Building Facilities Act, was presented as follows: Balrothery, for 48 new houses, £1,920; for reconstructing nine houses, £200. Celbridge, for 18 new houses, £720; for reconstructing three houses, £90. North Dublin, for 33 new houses, £1,320; for reconstructing six houses, £180. South Dublin, for 42 new houses, £1,680; for reconstructing eight houses, £240. Rathdown, for 34 new houses, £1,360; for reconstructing seven houses, £220.

DURHAM.—A statement as to proposals for the provision of more school accommodation in the County of Durham has been submitted at the meeting of the C.C.. The proposals comprise: A new school at West Cornforth, at an estimated cost of £5,288; school at Whiteleas (£3,912), Fishburn (£6,722), Leamside (£9,494), Silksworth (£5,353), for converting a portion of the hospital at Elisabethville, Birtley, into a school (£1,600). It is proposed shortly to submit proposals for a new school at Delves-lane, at an estimated cost of £6,119, Easington-lane (£16,877).

EASTBOURNE.—Plans passed by T.C.: King's-avenue, house, and garage, J. Sharples; King's-avenue, house and garage, W. W. Smith; Pashley-road, house, A. R. M. Sykes; Brodrick-road, three houses, Baldwin & Co.; 32, Hyde-gardens, conversion of ground floor and basement into two separate flats, Edgar Horn; 21, Upperton-gardens, conversion into flats, A. J. Gray; Prideaux-road, house and garage, G. A. Hewson.

ELLESMERE PORT AND WHITLEY.—The U.D.C. is preparing perliminaries for a town-planning scheme. Plans passed:—House, Copenhurst-lane, for Mr. F. Price; house, Princes-road, for Mr. Geo. Catchpole; brickworks in Copenhurst-lane, for Mr. W. H. Wilson.

GANTHORPE.—The M.T. has sanctioned the Notts. C.h. proposal for a bridge across the River Trent, at an estimated cost of £90,000.

GUILDFORD.—The office of the Borough Surveyor is to be enlarged at a cost of £350. Plans passed:—House, Woodbridge-road, submitted by Messrs. Hodgson, Lunn & Co., for the Surrey Standing Joint Committee; house, Warren-road, by Mr. W. H. James; house, Ennismore-avenue, by Messrs. Hodgson Lunn

& Co., for Miss Brooks; house, Tangier-road, by Mr. T. J. Capp, architect, Guildford, for Mr. J. A. Fogwill; house, Clandon-road, by Mr. H. Harlock; new road and sewers, "Royal Chase," Onslow Village, by Messrs. Elgood & Hastie, for Messrs. Onslow Village, Ltd.; house, Stocton-road, by Mr. J. Lake, for Mr. T. A. Cornell; house, Avonmore-avenue, by Messrs. Frampton & Co., for Mr. Barris; house, new road off Pewley Hill, by Messrs. Hodgson Lunn & Co., Architects, &c., Guildford, for Mr. Brand.

HARTSHILL.—Warwick county architect has prepared plans for class rooms at the Council school to accommodate another 100 scholars.

HARWICH.—Oakley-road is to be widened at a cost of £5,360. Plans passed: House, on Marine-parade, Dovercourt, for Mr. C. E. Hills.

HASTINGS.—Plans passed by T.C.: Bungalow, Moscow-road, for Mr. C. Butler, per Mr. J. Hunt, architect; bungalow, Filsham-road, for Mrs. Furber; More houses are to be erected on the Eversley-road housing site.

HATTON.—At the Warwick County Mental Hospital architectural work in connection with the erection of two houses, construction of a cinema, and other alterations and additions are being done for the Hospital Committee.

HAYES.—Middlesex C.C. and the G.W.R. are negotiating regarding the reconstruction of the canal bridge at Botwell.

HENDON.—A site at the Hyde has been purchased by the Middlesex C.C. for playing fields for Hendon secondary schools.

HORNSEY.—Plans passed by B.C.: Eight houses at Cholmeley-crescent, Mr. E. N. Cansick; nine at Fortis Green-avenue, Mr. O. H. Hughes; house at Lanchester-road, Miss R. A. Harrington; house, Woodside-avenue, Smerdon Bros.; house, Cranley-gardens, Mr. C. Winkley; two houses at Sheldon avenue, Mr. W. Quennell; bungalow, Avenue-road, Mr. A. Sweeney.—The Middlesex E.C. has been authorised to accept a tender for extensions at the Tollington High School for Boys.

KERESLEY.—A site has been purchased for the erection of a school.

KESWICK.—Proposals for extensions and additions to Keswick School to meet the growing demands for Secondary education are estimated to cost £20,500. The plans include new chemical and physics laboratories, classrooms, staffrooms and cloakrooms to cost £17,000, and additions and alterations to existing buildings costing £3,500. A sub-committee of the Cumberland C.C. has conferred with the Governors of the school regarding the proposals.

KINGSBURY.—The Middlesex E.C. has been empowered to place the contract for the adaption as a secondary school of the premises recently acquired from the Aircraft Manufacturing Co.

LEWISHAM.—Tenants on the Bellingham estate are urging the provision of a public library. The acquisition of the Charlton Park Estate of 110 acres is suggested as an open space. Plans passed: 10 houses, Coverton-road, for Messrs. W. Reynolds & Co.; shops and offices, Rushey Green, for Mr. A. E. Thomas; three houses, Fairfield-road, for Messrs. C. Cutler & Sons; 100 houses, Downham Estate, for the L.C.C.; 16 houses, Bellingham-road, for Mr. H. R. Watt; eight houses, Baring-road, Lee, for Mr. W. A. Ross.

LLANELLY.—The site of the Spring Gardens is to be utilised for the erection of a swimming bath. Plans passed by T.C.: House, King George-avenue, for Mr. Edward Clement; additions, General Hospital, for the Llanelly Hospital Committee.

LONDON (KENSINGTON).—The B.C. is negotiating for securing an improvement scheme which would provide *inter alia*, for the widening of Kensington High-street by the setting back of Messrs. Barker's premises on the south side of that street. In this connection the Council has received an assurance that if arrangements are made whereby Clarence-mews, Burden-mews and Ball-street are closed to the public and the site thereof incorporated with the adjoining buildings of Messrs. Barkers, no claim will be made by the Company for the strips of land proposed to be surrendered in connection with the widening scheme, the matter of compensation being confined to rebuilding and disturbance. The Committee acquiesces in this proposal. The B.C. proposes the erection of 40 more tenements on the St. Quintin estate.—Large derelict houses taken over by the B.C. are to be converted into flats, and Mr. J. B. Gridley, architect, is to prepare specifications and obtain tenders for the conversion of 34 and 36, Bosworth-road into flats; and Mr. L. R. Guthrie, architect, is to act similarly in regard to four houses in Sirdar-road.

LONDON (SHOREDITCH).—The B.C. is preparing particulars of all derelict property in the borough with the object of dealing with it under the provisions of the new Housing Bill.

LUTON.—The L.N.E.R. have promised to go into representations made by the T.C. for improving the railway stations of the town. The B.S. has prepared plans for the conversion of the Plait Hall into a covered market and been instructed to obtain prices for the ironwork and tenders for the constructional work. The B.S. is to prepare plans and estimates for the reconstruction and improvement of the sewage pumping station. Plans passed: Two houses, Biscot-road, R. H. Sharp and C. W. Walker; four houses, Stratford-road, A. Carter; four houses, Arundel-road, C. T. Webb; four houses Carlton-crescent and Alexandra-avenue, E. Pryer; two houses, Carlton-crescent, W. M. Router; six houses, Kingston-road, Geo. Day; four houses, Biscot-road, J. T. Garrett; two houses, Biscot-road, F. Willis.

LYTHAM.—The Liggard brook lineage on the Preston-Lytham St. Annes main road is to be reconstructed at a cost of £4,000.

MANCHESTER.—Public conveniences are to be constructed in Belle Vue-street and Gorton-lane. A stores department for the Electricity Department is to be built at Chorlton, at a cost of £40,000. The City Architect has been authorised to prepare plans for car-shed extension at the tram depot. St. Mary's Municipal School is to be converted into a central school, at a cost of £1,600. Plans passed:—Six houses, St. Austell's-road, Chorlton-cum-Hardy; three houses, Ellesmere-road South and Egerton-road South, Chorlton-cum-Hardy; two houses, St. Brannock's-road, Chorlton-cum-Hardy; two houses, Milton-grove, Whalley Range; two houses, Manor-drive, West Didsbury; 40 houses, Goulden-road, Hague-road, and Rutland-avenue, Withington; 40 houses on portion of Burnage Housing Estate, Crossley-road, &c., Burnage; six houses, Brook-road, Wilmslow-road, and Mitford-street, Withington; six houses, Ash-grove, Longford-place, Rusholme; 128 houses on the Didsbury Park Estate, Didsbury; new street, Wembley-grove, Wellington-road, Rusholme; continuation of Rutland-avenue, West Didsbury; house, Darley-avenue, West Didsbury; steelwork to showrooms, New Wakefield-street; two houses, Burton-road and Leighton-road, Withington; Co-operative stores and hall, Withington-road, Moss Side; shop and house, Lloyd-street South, Withington; shops, showrooms, market hall, and motor auction, Wilmslow-road and Grange-street, Rusholme; electricity sub-station, Princess-street, Newton Heath; shop, café, and offices, Bridge-street and Dolefield; house, Sherdley-road, Crumpsall; shop, workroom, &c., Little Lever-street and Stevenson-place; steelwork, &c., to warehouse, No. 23, High-street and Marsden-square; power station to works, Gorton-lane and Preston-street, Gorton; store to works, Chatham-street, Clayton; new street, Moss Grange-avenue, Upper Chorlton-road, Moss Side; addition to brewery, Bland-street and Bold-street, Moss Side; office, store, and garage, Longford-road, Chorlton-cum-Hardy; steelwork, &c., to warehouse, Calder-street, Great Bridgwater-street; house, Polruan-road, Chorlton-cum-Hardy; house, Derwent-avenue and Darley-avenue, West Didsbury; additions to synagogue, Lansdowne-road, West Didsbury; house, Polefield-road, Blackley; additions to machine shop to Hendon Vale Works, Hendham Vale; house, Polefiel-road. Blackley.

MANSFIELD WOODHOUSE.—The Church of England School is to be enlarged by 50 places and generally improved.

MEREDEN.—Arrangements have been made by the Warwick C.C. for the police house to be completed by Mr. G. Bryant, of Wellesbourne, at a cost of £240.

MERTHYR TYDFIL.—The Borough Architect is to prepare a scheme for dealing with the Upper Colliers-row area. Plans have been prepared in connection with the Fiddler's-row Viaduct for the erection of a bridge near St. Cynons' Church, at a cost of £18,000. The Forest-road housing site is to be developed, the Borough Architect having been asked to prepare his proposals therewith. In connection with the Pant housing scheme the Borough Architect has been asked to submit a comparative estimate of the cost of manufacturing and purchasing partitions. Sketch plans have been asked for in regard to the Tavern Field site. It has now been decided to have a modified scheme for the central library, Mr. Richards being asked to prepare a scheme not to cost more than £18,000. The principle of the establishment of a central depot for the Corporation business has been decided on. Plans have been passed for five houses, East-street, Dowlais, for Mr. D. Dalacey.

NEWCASTLE-ON-TYNE.—A suitable memorial is to be erected to the late vicar of Witton Park, and it is supposed it should take the form of Sunday School premises, which had been contemplated by Mr. Geeson.

NEWPORT (ISLE OF WIGHT).—After negotiation with the Board of Trade, the Corporation has arranged for Messrs. Orr, Wall & Co., Ltd., to proceed with the construction of the new swing bridge at the quay.—Plans passed: Converson of old "White Horse," Upper St. James-street, to stores, for Thomas, Gates, Bradfield & Co..

NEWARK.—Plans are being considered by the Governors of the Girls' High School for the provision of a central hall and other improvements, at a cost of about £3,000.

NORTHAM.—The U.D.C. General Purposes Committee presented a scheme for dealing with coast erosion at Westward Ho! at an estimated cost of £6,000, and recommended application to the Unemployment Grants Committee with a view to asking the sanction of the M.H. to borrow £6,000. This was approved.

OLDHAM.—Plans have been prepared by Messrs. Taylor & Simister for alterations at the Town Hall to provide for a retiring room for the Councillors. The erection of a children's hospital is recommended. Plans passed:—Conversion of portion of the White Bear Inn, Market-place, into business premises for Mr. J. R. Plowright.

PETERBOROUGH.—Plans passed by T.C.: Bungalow and garage at Park-road, for Mr. J. R. Johnson; two houses, Russell-street, for Mr. J. G. Maddison; house, Gladstone-street, for Mr. J. G. Maddison; house at Park-crescent, for Mr. P. J. Fairweather; house at Broadway, for Mr. Andrews; house at Grange-road, for Mr. Elmer; house at Harris-street, for Mr. A. F. Stevens. Before deciding as to the widening of Narrow-street, the Corporation has arranged to ascertain the probable cost.

PLYMOUTH.—Plans passed by T.C.: G. A. Daymond, five houses, Bridwell-road; W. R. Littleton, six houses, Lyndhurst-road; M. M. Hart, bungalow, Mutley-road; A. Spurrell, house, Compton Park Villas-road; W. H. Joce, two houses, Compton Park-road; F. Packer, two houses, West Down-road; J. Roberts, addition, 91, Mutley Plain; Committee of South Devon and East Cornwall Hospital, addition to pathological block, South Devon and East Cornwall Hospital; Kimbers, 20 lock-up garages, Devonport Station, G.W.R.; G. H. Webber, five houses, Rowden-street; W. R. Swiss and T. F. Savage, two bungalows, Wolseley-road, Saltash-passage; F. Westcott, bungalow, Bladderley-road.

PRESTON.—Plans passed by T.C.: R. Cooper & Sons, for J. A. Butler, house and shop, Holmrook-road; F. N. Pinder for E. Atkinson, two houses, Frenchwood-avenue; J. Nightingale for J. Wilding, house, Brackenbury-road; J. Nightingale, four houses, Addison-road; A. J. Duckworth, for Mrs. W. Ralphs, bungalow, Heather-grove; V. B. Norton, bungalow, Lytham-road; J. W. Grange, three bungalows, Lytham-road; T. Bradley, bungalow, Ribbleton-avenue; J. Sargent for Sargent & Fish, four houses, Primrose-road; E. J. Andrew for G. Carter, bungalow and garage, Watery-lane.

RADCLIFFE.—It is proposed to construct a new road from Radcliffe to Manchester, through Darcey Lever.

ROCHDALE.—Plans for two bungalows were approved by the Housing Committee. The Housing Committee recommended the Council to invite offers for the purchase of freehold plots of land on the Turf Hill Estate for the erection of permanent shops.

RUGBY.—The M.H. has approved a sewage scheme. The B.E. has passed plans for the proposed new secondary school.

ST. ANNES.—The Corporation has in hand another building scheme, which follows the acquisition of suitable areas of land at Squires Gate. On these it is intended to erect, as soon as possible, 20 houses.

SEDGEFIELD.—Plans passed by R.D.C.: Bakery at the Broom, Ferryhill, Mr. E. Callend; house and garage, Chilton Buildings, Mr. J. P. Coulson; conversion of two cottages into shop, Trimdon Grange, Mr. Farmer.

SELBY.—The West Riding C.C. are going to build a new bridge over the canal in place of the old stone bridge, at a cost of £15,000.

SELSTON.—The B.E. has passed plans for the erection of an iron building for 60 scholars at the Portland-row Council School.

SHENLEY.—Middlesex C.C. have appointed the County Architect to act in connection with the erection of the buildings at the Porter's Park Estate, recently acquired for the provision of further accommodation for mental defectives.

STOCKTON.—Plans passed by R.D.C.: Bungalow, Thorpe Thewles, Mr. W. Howe; house, Wynyard-road, Wolviston, Mr. Loughran, Port Clarence; house, Wolviston Green, Mr. Dearlove; house, Preston, Mr. F. Hay; house, Elton Back-lane, Mr. W. Beswick, Stockton; bungalow, Preston, Mr. J. Wheatley.

STOKE NEWINGTON.—The Public Library Committee has been empowered by the B.C. to accept the most favourable tender for the extension of the public library. A committee has been asked to report as to the provision of a swimming bath for the borough.

STRATFORD-ON-AVON.—The R.D.C. have prepared plans for additions to the old Toolgate Cottage at Wootten Wawen, but the Warwickshire C.C. suggests an entirely new building further back so that the road can be improved there.

STRETFORD.—A new secondary school for boys is proposed by the Lancashire C.C.

SUNBURY.—The Middlesex C.C. has decided to include an assembly hall at the new council school, which Messrs. C. J. Newby Bros. are erecting. The estimated cost is £2,000.

SWINTON.—Lancashire C.C. proposes a secondary school for Swinton, Pendlebury and Worsley.

THORESBY (NOTTS).—In connection with the new railway to the New Colliery the L.N.E.R. are to construct a bridge on the Ollerton–Mansfield main road.

TOTTENHAM.—The Middlesex C.C. propose alterations at and additions to the Tottenham Courthouse and Polytechnic. The scheme has been prepared by the county architect. The county architect estimates the cost of the work at £2,500.

TYNEMOUTH.—Plans passed by T.C.: Shops and flats corner of Hawkey's-lane and Newcastle Turnpike, for Mr. Percy Scorer, by Messrs. F. R. N. Haswell & Son; War memorial, West Allotment, for West Allotment and District War Memorial Committee, by Mr. W. Wright; four houses, Kirton Park-terrace, for Mr. Beautyman, by Messrs. P. L. Brown & Son; two houses, Kenners Dene, Tynemouth, for Messrs. J. F. Newbold & Co., by Mr. A. K. Tasker; 16 houses on the Hunt Hill Estate, for Messrs. Ball Bros., by Mr. W. Stockdale; conversion of dwellings into shops and offices, West Percy-street and Bedford-street, for Mr. J. Vert, by Mr. J. R. Wallace; four houses, Stanwick-street, Tynemouth, for Messrs. B. Peel, Ltd., by Mr. W. Stockdale; semi-detached houses, Cleveland-road for Mr. W. Bower, by Mr. W. Stockdale.

WALTON.—To strengthen the county bridge the Middlesex C.C. is to construct a concrete raft on the southern approach and tye the spandril walls at a cost of £800.

WARRINGTON.—The T.C. is preparing plans for 54 houses on the Reynolds-street site. Three houses for firemen are to be erected in Cambria-place. Alterations are to be made at the Technical School, at a cost of £3,000. Plans have been prepared by the B.S. for a bridge across the river near Manor Lock, in order to facilitate town development. Plans passed: Wesleyan church and schools, Ellesmere-street, for Trustees, Ellesmere-street Wesleyan Church; house, Alexandra-street, for Mr. A. Harter; sub-station, Kerfoot-street (behind), for Warrington Corporation (Electricity Committee); single-story building on Nora-street, for The Firth Co., Ltd.; butcher's shop and loading yard, &c., Cairo-street, for Warrington E.I. Co-operative Society; pavilion on Recreation Ground, Gorsey-lane, for Messrs. Rylands Workmen's Recreation Club.

WEST BRIDGFORD.—10 Allotments in Loughborough-road, Chantry-road and Carlisle-road are now to be developed for building purposes.

WHICKHAM.—Messrs. Adams have submitted to the U.D.C. plans for two shops on land on the Gateshead-Hexham main road at Swalwell, and negotiations are taking place regarding the building line.

YORK.—Plans passed by T.C.: E. Relton, two houses, Carrington-avenue; G. Forster, house, Moorgate; J. Terry & Sons, Ltd., bottle store, &c., Vine-street; C. Martin, Ltd., two houses, Beech-avenue; R. Johnston & Sons, six houses, Beech-avenue; T. Harrison, two houses, Hull-road; York Equitable Industrial Society, Ltd., alterations, Holgate-road.

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[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

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Flettons, at King's Cross	2 13 3
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2½ in.	8 11 0	3 in.	10 3 0

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Best White Ivory, and Salt Glazed Stretchers	23 0 0	D'ble Str'tch'rs	31 10 0
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Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

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2 in. per yd. super	2 1	3 in. per yd. super	2 11
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Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
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" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
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BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube — s. d. 2 9½

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Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube — 4 4

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White basebed, 3d. per ft. cube extra.

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Random blocks from 10 ft. and over "	17/-
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6 in. sawn two sides landings to sizes (under 90 ft. super.) Per Ft. Super	5 6
6 in. rubbed two sides, ditto "	6 0
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in. ditto, ditto "	1 4

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6 in. rubbed two sides ditto "	6 1½
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3 in. ditto ditto "	2 1½
2 in. self-faced random flags. Per Yard Super	9 0

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4 × 9	32 0	3 × 11	30 0
4 × 8	26 0	2 × 11	30 0
4 × 7	26 0	3 × 9	26 0
3 × 8	25 10	2½ × 9	27 0
3 × 7	25 10	3 × 4½	25 0
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½	21/-	1½	33/6
¾	24/-	1¾	37/6
1	26/-		

TONGUED AND GROOVED FLOORING. Inches.	per sq.
1	26/6
1¼	33/6
1½	38/-

MATCHINGS (BEST). Inches	per sq.
½	17/6
¾	21/-
1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 8
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¼ in. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 12 6
Ditto hand made ditto	5 17 6
Ornamental ditto	6 7 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work "	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅝ in.	14 10 0	¾ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	50 %	50 %	60 %
Water	45 %	45 %	55 %
Steam	40 %	40 %	50 %
Galv'd—			
Gas	35 %	40 %	50 %
Water	28½ %	35 %	45 %
Steam	22½ %	30 %	40 %

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	—	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
" Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16 0 0
" " 24 g.	16 0 0	..	17 0 0
" " 26 g.	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	44 0 0
Pipe in coils	44 10 0
Soil Pipe	47 10 0
Compo pipe	50 10 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	31	0 0	.. —
Do., ex country, carriage forward per ton	32	0 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.P

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1¾ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.
Strong Sheet per lb.	0 2 3 .. —
Thin " "	0 2 4 .. —
Copper nails "	0 2 3 .. —
Copper wire "	0 2 4 .. —
TIN—English Ingots "	0 2 4 .. —
SOLDER—Plumbers' "	0 1 2 .. —
Tinmen's "	0 1 4 .. —
Blowpipe "	0 1 5 .. —

PAINTS, &c.

	£ s. d
Raw Linseed Oil, in pipes per gallon	0 3 9
" " " in barrels "	0 3 11
" " " in drums "	0 4 2
Boiled " " in barrels "	0 4 2
" " " in drums "	0 4 5
Turpentine in barrels "	0 5 9
" in drums (10 gall.) "	0 6 0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57 0 0

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 80 5 0

Red Lead, Dry (packages extra) per ton	52 0 0
Best Linseed Oil Putty per cwt.	0 18 0
Filocol per cwt.	0 15 6
Size. XD Quality per ckn.	0 3 6

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
15 oz. fourths ..	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths ..	5d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21 oz	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 10 0
Best Black Japan		0 10 6
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

Memorial Church, Castleton.

The foundation stone of a memorial church at Castleton was laid recently by Viscount Downe. Messrs. Temple, Mooore & Moore, of London, are the architects, and Messrs. Lidell Bros., of Moorsham, the contractors.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND

Aberdeen.—HOUSES.—Plans for four houses with other building work have been passed by the Corporation Plans Committee.

Alloa.—CLASSROOMS.—The Dean of Guild Court has passed plans for new classrooms at the Ludgate Centre.

Ayr.—BUILDINGS.—The Buildings Committee of the Ayr D.C. has passed the following plans: School at Pennievenie, Dumellington; cottage at Alloway, for J. Limond, Woodfield. Ayr; alterations at Fairfield Lodge, for Col. Campbell, Fairfield; 77 houses at Burnfoot, New Cumnock; house at New Cumnock; two cottages at Shields Farm, Monkton; cottage at Sorn-road, Auchinleck; alterations at the "Coylton Arms" Inn; house in Longbank-road.

Edinburgh.—BUILDINGS.—The Corporation Public Parks Committee resolved to recommend the erection of a building at the tennis courts, Inverleith.—The Dean of Guild Courts has granted warrants for the erection of a house at Granton-road; bungalow at Hillview-terrace, Blackhall; two semi-detached houses at Saughtonhall-avenue; bungalow at Dovecot-road, Corstorphine; four houses at Saughton-hall avenue; also for offices at Mains Hospital.

Portobello.—SCHOOL.—The Edinburgh Dean of Guild Court has passed plans for a R.C. School at Hamilton-terrace. The cost will be about £25,000.

Paisley.—HOUSES.—The Scottish Board of Health has approved the sketch type plans for the two and three-apartment houses under the slum clearance scheme; and also approved the local authority's proposal to erect 42 houses at Baterholm and 60 at Springbank-road.

CONTRACTS OPEN.

NO DATE.—**Inverness.**—RECONSTRUCTING ROAD.—For the carrying out of the following works, for the Town Council: Reconstruction of Mayfield-road; repairing and resurfacing of Longham-drive, Inverness; laying a sewer on Mayfield-road; and formation of a footway on the top of the embankment. Specifications may be had from Mr. A. F. Mackenzie, burgh surveyor and tenders may be lodged with Mr. G. S. Laing, Town Clerk.

AUGUST 12.—**Polmont. (Stirling)**—NEW ROADWAY.—For forming new roadway at Brighton's housing site, near Polmont Station, for the Stirling County Council. Schedule may be had on application from Mr. T. M. Copland, C.E., 76, High-street, Falkirk.

AUGUST 21.—**Tarbert Harbour.**—WORKS.—Tenders are invited for works shortly to be commenced on the passenger wharf and goods quay at Tarbert, Lochfyne. Plans, specifications and schedules of the works may be obtained from J. S. Henderson, "The Hollies," Lochgilphead.

THE BUILDING DISPUTE

THE employers' and operatives' representatives had meetings at their respective offices in Glasgow recently, but the questions under discussion were mainly of a private character. The operatives heard reports from the various districts, and they considered that satisfactory progress was being made.

An official of the Glasgow Operatives' Disputes Committee stated that the attention of the committee had been drawn to the fact that unskilled men were being employed on contracts from which building trade labourers had withdrawn their labour on account of the strike. The Committee had decided, he said, that all such jobs would be regarded, even after the strike, as "blackleg," and that no craftsmen would be allowed to work there.

The Scottish employers in a statement to the Press mention that the manifesto issued by the operatives' secretary in Scotland still maintains a claim that 60 per cent. of their operatives who are members of the union are working. It must, they state, be noted that such a claim, having in view the almost complete stoppage of building trade work in Scotland south of Dundee, simply exposes the known fact that the operatives' union does not contain in its membership more than 40 per cent. of the workmen. The further claim that 600 employers have signed the agreement has already been disposed of from the national headquarters in London, whereupon Mr. Coppock claimed that 350 employers had agreed to the men's demands. This will obviously cover all the employers not only in the south of Dundee but north of Dundee, where the operatives' union are content to observe the old conditions. The building trade employers are satisfied, they state that instead of an increase in the number of men employed, the lock-out notice and the withdrawal of signed agreements has replaced hundreds of men on the strike roll.

OBITUARY

THE death took place recently of Mr. John Henderson, Director of Glasgow School of Art. His father was the late Mr. Joseph Henderson, the Scottish marine and landscape painter, whose three sons also became artists. Mr. John Henderson, the second son, was born in Glasgow in 1860, and was educated at a private school and at Glasgow University. He graduated Master of Arts in 1881, with first-class honours in philosophy. On the death of his older brother, he decided to follow the profession of the fine arts, and he studied painting under his father and also at the Glasgow School of Art, of which he afterwards became the head. Early in his career, Mr. Henderson took an active interest in matters connected with the teaching of art in Glasgow. Some twenty years ago he became a member of the Board of Governors of the School of Art, representing on that body the Haldane Trust. He became vice-chairman of the board ten years ago, and when Mr. F. H. Newbery retired from the directorship of the school, about seven years ago, he was succeeded in that position by Mr. Henderson. He was also chairman of the Haldane Trust and a governor of the joint board of the Glasgow School of Architecture.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/6	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½	
Inverness	1/4½	—	1/4	1/4	1/4½	1/4	1/4	1/- to 1/2	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/0	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern Districts)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Whitaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 223.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
½ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights: average size	" "	3	9

DOORS.

		1¼"	1½"	2"
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	"	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	59	0
Do. Do. in flats	"	57	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/1	1/9	1/11	3/5	4/2	
Do. service	"	1/8	2/2	2/7	3/10		7/6
Do. soil	"						8/3
Bends in lead pipe	each					3/3	
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8
26 oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	10½
¼ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	3
Preparing for and hanging paper	per piece 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ABERYSTWYTH.—For erecting (*a*) five workmen's dwellings in Mill-street and (*b*) five workmen's dwellings near the Drill Hall: —

*D. Williams, Porth (Glam.)—(*a*) £2,450; (*b*) £2,465

ASHTON-UNDER-LYNE.—For reconstruction of laundry, for the B.G. Mr. G. J. Gibbs, Engineer, 7, Lune-street, Preston:—

E. Kain, Preston	£3,138 18 10
J. Armstrong & Co., Ltd., London, E.C. 4	2,999 6 0
T. Acton, Oldham	2,912 13 9
James Ritchie, Glasgow	2,878 4 3
E. Marshall & Sons, Ltd., Ashton-under-Lyne	2,859 5 9
*T. Bradford & Co., Salford	2,838 8 3
D. & J. Tullis, Ltd., Clydebank	1,826 12 9

BANCHORY TERNAN.—For mason, carpenter, slater work, &c., for additions to the Central Higher Grade School, for the Kincardineshire E.C. Messrs. Wilson & Walker, FF.R.I.B.A., architects, 375, Union-street, Aberdeen, and quantities also by them:—

Mason—P. R. Leslie, Torphins.
Joiner—R. Robertson, Torphins.
Slater—G. L. Grant, Banchory.
Plumber—J. C. Johnstone, Banchory.
Plasterer—McRae Bros., Banchory.
Painter—Jas. Chrystall, Banchory.
Heating—R. Tindall, Aberdeen.
Total cost, about £2,000.

BARKING TOWN.—Fencing for Greatfields Recreation Ground, for the U.D.C.:—

Sanders & Forster, Ltd.	£885 0 0
Hill & Smith, Ltd.	808 5 7
Bayliss, Jones & Bayliss, Ltd.	714 7 9
A. W. Smith & Co.	669 0 0
Norton Bros.	634 15 2
*Carruthers & Pratt	623 12 6

BEDFORD.—For alterations and additions to the Girl's High School, for the Governors of the Harpur Trust. Mr. G. P. Allen, F.R.I.B.A., architect and surveyor, of Bedford:—

Lovell	£1,088 0 0
W. Laughton	896 5 8
J. Corby & Son	884 0 0
H. Bowler	860 0 0
C. Negus	851 0 0
*MS. Foster, Ltd.	826 0 0

(All of Bedford.)

BIRKENHEAD.—For the erection of 193 non-parlour houses on the Derby Park Estate, for the T.C.:—

*Selwood, Lloyd & Co. £86,512 5 0

BOLSOVER.—For the erection of 30 houses in Moorfield-lane, for the U.D.C.:—

*W. A. Goss £13,950

BOLSOVER.—For laying water main in Moorfield-ane, for the U.D.C.:—

*E. Cowper £161 7

CARDIFF.—For erection of 20 sets of firemen's quarters and other works at the Central Fire Station, for the Corporation. Mr. T. Peirson Frank, City Architect, City Hall:—

T. R. Evans, Cardiff	£36,305 0 0
W. H. Evans, Cardiff	34,655 0 0
J. E. Evans, Cardiff	34,498 0 0
F. J. Thomas, Cardiff	34,277 17 0
*Henry Jones, Cardiff	32,635 2 11

CHELMSFORD.—Painting water-tower, for the T.C.:—

W. G. Beaumont & Son, London	£211 0 0
Choat & Sons, Chelmsford	155 0 0
H. T. Cowell, Chelmsford	170 0 0
‡The Norfolk Decorators, Ltd., London	137 5 6

CHIPSTONE.—Erection of school for 728, for the Notts. E.C.:—

*A. Eastwood & Sons, Warsop £16,750

DURHAM.—For erection of 50 houses on Shield Row Housing Estate, for Stanley U.D.C. Mr. A. Routledge, Council Offices, Stanley, co. Durham:—

"*A2*" *Type.*
*G. E. Ridley, Stanley (8 houses) £3,087
*T. W. Raper, Stanley (22 houses) 8,580
"*A3*" *Type.*
*W. F. Rendle, Stanley (20 houses) £8,546

EAST RIDING OF YORKSHIRE.—For construction of reinforced concrete bridges at Fraisthorpe and Lissett, for the C.C.:—

*J. Sawdon, Bridlington £1,180 and £2,120 respectively.

EDINBURGH.—For construction of Portobello sewer and sea wall, for the T.C.:—

*Bain & Brown £54,480

FIFE.—For laying 685 yds. of 9 in. diameter fire-clay sewers, &c., for the County. Mr. H. F. Hodge, Engineer, County Building, Dunfermline:—

*Robt. Baxter & Sons, Dunfermline £566 19 2

GLASGOW.—Shettleston and Tollcross Library' new contract for T.C.:—

*Hewter & Marshall—£1,946 14s., for the completion of joiner work.

GLASGOW.—Construction of workhouse at Dobbies-Loan, for T.C.:—

Digger, brick, mason, reinforced concrete, and asphalte works—
*A. Bremner & Co. £10,196 0 0
Carpenter, joiner, and glazier works—
*W. J. Crawford 1,698 1 9
Plumber work—
*G. Munro 2,050 9 10

GLASGOW.—Construction of new buildings at Trongate, for T.C.:—

Excavator, mason, and brick work—
‡Jackson, Brown & Co. £15,651 7 4
Carpenter and joiner work—
*John M'Donald (Contractors), Ltd. 7,436 6 5
Plumber work—
*John Paterson & Co. (Plumbers), Ltd. 1,633 12 5

GUILDFORD.—For erection of 10 pairs of non-parlour houses at Clive-road, for the T.C.:—

Gibson & Harris, Shalford	£10,614 10
Grove & Son, Guildford	10,580 0
‡Perry Bros., Ealing	9,400 0

GUILDFORD.—For the improvement of Woking-road, for the T.C.:—

Swinford, Powell & Morrison, Ltd., Woking	£5,350 0 0
Henry Osman & Co., Southampton	4,939 12 3
A. Streeter & Co., Godalming	4,859 11 2
W. Manders & Co., London	3,942 10 6
*D. Weston & Co., Croydon	3,785 16 7
J. Douglas, Southampton	3,709 0 0

GUILDFORD.—For surface-water sewer in Grange-road, for the T.C.:—

John Douglas	£242 9 0
Perryman & Last	284 8 3
Swinford, Powell & Co.	271 16 0
A. Streeter & Co.	255 19 0
*Franks Harris Bros., Guildford	237 0 0

HULL.—Electricity extension works for T.C.:—

*The Ovenden Sheet Metal Co., Halifax £367 10

HULL.—Erection of Ferens Art Gallery, for the T.C. Messrs. Cooke & Dawes, architects:—

*George H. Panton & Sons, Ltd. £53,980

LAKE VYRNWY.—For painting several houses, cottages, offices and workshops, for the Liverpool Water Committee. Mr. W. Moon, Town Clerk, Town Hall, Liverpool:—

C. R. Jones, Oswestry £570 15

LANCASHIRE.—Erection of seven pairs of cottages on small holdings at Howick. Hutton and Longton, for County Agricultural Committee:—

*E. Tomlinson & Co., Leyland £7,315

LANCASHIRE.—Erection of Dutch barn and loose-boxes at Pear Tree Farm, for County Agricultural Committee:—

*P. Barron, Tarleton £220 10 5

LANCASHIRE.—Resurfacing part of the Burnley-Todmarden main road, for C.C.:—

*Penmaenmawr and Trinidad Lake Asphalt Co., Ltd. £4,142

LANCASHIRE.—Building a river wall, &c., in connection with the Hodder Higher Bridge, for C.C.:—

*Byroms, Ltd., Bury £898 15

LANCASHIRE. — Reconstruction of Ellerbeck bridge, for C.C.:—

*R. Birch & Sons, Lindal-in-Cartmel £1,429 19 10

LANCASHIRE.—New bridge across L.M.S. railway on the new road between Poulton and Singleton, for C.C.:—

Steel work—
*Skipworth, Jones & Lomax, Trafford Park £3,132
Masonry work—
*J. Dickenson & Co. (Bolton), Ltd. 12,591

LANCASHIRE.—For construction of new road from Freckleton village to the Preston main road, for C.C.:—

*T. Croft & Sons, Ltd., Preston £37,568 12

LANCASHIRE.—Reconstruction of further lengths of Liverpool and Manchester main road, at estimated cost of £14,497, for the C.C.:—

*W. Turner (Ardwick), Ltd.

LEEDS.—For structural alterations at 40, Park-lane, for office accommodation, for the T.C.:—

*J. T. Wright £10,186 3 7

LIVERPOOL.—For erection of 1,000 houses, for the T.C.:—

*Unite Construction Co. £515 for each "B 950" type, and £465 for each "A 814" type, each type to be in blocks of two or four.

LIVERPOOL.—For building of tenement houses in Larkhill, Clubmoor and Springwood, for the T.C.:—

*John Lewis, 24 tenement houses	....	£17,603
*Turner & Moss, 25	do.	 17,123
*Haugh & Pilling, 24	do.	 14,483
*J. Jones & Sons, 24	do.	 18,340
*Duthie & Sons, 24	do.	 18,139

LIVERPOOL.—For painting, &c., cottages, offices and workshops at Lake Vyrnwy, for the T.C.:—

*C. R. Jones £570 15

LIVERPOOL.—For the erection of a shelter at Warbreck Moor Recreation Ground, for the T.C.:—

*Brigg & Collins £166

LIVERPOOL.—For the erection of shelter at Greenbank Estate, for the T.C.:—

*J. Rimmer £200

LONDON.—For cleaning and decorating works at Town Hall, for St. Marylebone B.C.:—

*J. Simpson & Son £415

LONDON.—For street works in Grove End-road, for the St. Marylebone B.C.:—

*Limmer & Trinidad Lake Asphalt Co., 12s. 4d. per sq. yd.

LONDON.—For supply of furniture and fittings at Children's Department of Central Library, for the Deptford B.C.:—

North of England School Furnishing Co.	£425 17 6
G. M. Hammer & Co.	348 0 0
*Libraco, Ltd.	292 0 0

LONDON.—For the erection of the maisonettes in Fletching-road, for the Hackney B.C.:—

Geo. Parker & Sons, Ltd.	£44,652 0 0
J. & W. Stewart	43,258 11 3
Wm. Shurmur & Sons, Ltd.	41,549 0 0
G. B. Farrar & Co.,	38,828 0 0
*F. & G. Foster	35,559 0 0

LONDON (CHISWICK).—Construction of secondary school in Burlington-lane, for the Middlesex C.C.:—

‡G. Godson & Sons, Ltd., Kilburn-lane £33,870

MANCHESTER.—Extension and alterations Baguley Sanatorium, for T.C.:—

*F. Heys, Manchester.

MANCHESTER.—Additions and alterations Southall-street School, for E.C.:—

*Atkinson & James, Manchester.

MANCHESTER.—Additions and alterations, Lily-lane School, for E.C.:—

*Atkinson & James, Manchester.

MANCHESTER.—Supply of 6 in. and 3 in. cast iron pipes, for T.C.:—

*Sheepbridge Coal & Iron Co., Ltd., Chesterfield.

MANCHESTER.—Repairs to Clarendon-road police station, for T.C.:—

*S. Ashton, Manchester.

MAYFIELD (SUSSEX).—For erection of a house, for Mr. Hugh J. Brock. Mr. Frank Nash, architect, 6, New-square, Lincoln's Inn, W.C. 2:—

E. J. Hodges, Mayfield	£1,599
H. & E. Waters, Forest Row	1,589
A. Chilton, Uckfield	1,489
Durrant Bros., Uckfield	1,439
S. Lea, Mayfield	1,275

MONMOUTHSHIRE.—For converting Hafod-y-ddol house into a secondary school, for the County E.C.:—

*Gay & Head, Blaina £3,700

NEWCASTLE.—For the re-painting externally of 198 houses on the Walker housing estate. The Housing Architect's Dept., 18, Cloth Market:—

Jas. Burdon, Ltd., 75, West-street, Gateshead	£720 0
E. S. Smith, 98, Cardigan-terrace, Heaton, Newcastle	690 0
J. Cato, 166, Heaton-road, Newcastle	682 15
Sydney Hull, 77, Clayton-street, Newcastle	597 0
Alexander & Sons, 7 and 9, Leazes Park-road, Newcastle	586 11
H. J. Sinclair, 158, Heaton Park-road, Newcastle	557 10
W. B. Cato, 251, Chillingham-road, Newcastle	553 8
Stephenson Bros., 116, New Bridge-street, Newcastle	498 0
T. & R. Stephenson, Cherryburn-gardens, Fenham, Newcastle	434 0
W. S. Hetherington & Sons, 48, Ashleigh-grove, West Jesmond, Newcastle	424 11
A. E. Preece, 6, Ulverstone-terrace, Walker	400 0
A. Robertson & Son, Newcastle	398 0
*Alex. Anderson, Newcastle	297 0

NEWPORT (I.O.W.).—Construction of houses, for T.C.:—

‡Mr. H. Dalton—Two pairs at £820 per pair.
‡Mr. T. E. W. Phillips—Four pairs at £764 per pair.

NUNEATON.—Fencing land on the Birmingham Nuneaton main road by Bacon's End and Coleshill Hall bridges, for Warwickshire C.C.:—

*W. Blackwell £236 5

PLYMOUTH.—For repairs at 2, High-street, 30, George-street, Stonehouse, and 2 and 3, Eton-terrace, for the T.C.:—

*F. G. Nicholls—2, High-street	£129 10
*C. Lobb—30, George-street	139 10
*C. Lobb—2 and 3, Eton-terrace	100 0

PLYMOUTH.—For the erection of 134 houses at North Prospect, for the T.C.:—

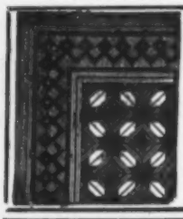
*James Cockerell £79,874

PLYMOUTH.—For sewage disposal works at Udal Torre, for the T.C.:—

*Maben & Waldron £345 10 4

PLYMOUTH.—For construction of subway at Ford, for the T.C. :—
*R. T. Hortop & Co. £3,217 10

PRESTON.—For the re-erection of the Isolation Hospital Lodge, for the T.C. :—
*J. Turner £620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PRESTON.—For the supply and erection of wrought iron fencing at Isolation Hospital, for the T.C. :—
*T. Blackburn & Sons £566 3 8

ST. GERMANS.—For erection of a house at Downderry. Messrs. Parkes, Lees & Rosedeare, architects, Launceston :—
Sandy & Carthew, St. Germans £1,641 10
‡J. H. Runnalls & Son, Liskeard 1,390 0

SELSTON.—Erection of classroom at Bagthorpe School, for Notts. E.C. :—
*E. Allcock & Sons, Eastwood £2,008

SOUTHPORT.—Road works, for T.C. :—
*Webster & Winstanley, of Wigan—£1,807, Belvedere-road; £2,290, Osborne-road; and £927, Belgrave-place.

SOUTHPORT.—Erection of boys' secondary school, for T.C. :—
*W. Moss & Sons, Ltd. £58,895

SOUTH SHIELDS.—Extension of tramcar sheds, for T.C. :—
*H. T. Newbigin, Ltd., Newcastle.... £7,350

STOKE-ON-TRENT.—Alterations and extension at the Market, for T.C. :—
*Ball & Robinson £2,697

STOKE-ON-TRENT.—Erection of 41 houses, Scotia-road, Burslem, for T.C. :—
*Finney & Broadhurst £20,198

SUTTON COLDFIELD.—Erection of pair of police houses, for Warwick C.C. :—
*G. T. Stephens..... £1,628

WALLINGFORD.—For erection of a fire station in Station-road. The Borough Surveyor, 12, St. Martin's-street :—
Francis Bros., Tilehurst, Reading £2,180 0 0
J. Smallbone & Sons, Streatley 2,150 0 0
Boshers, Ltd., Cholsey 2,083 10 0
*Brasher & Sons, Wallingford .. 2,022 4 4
Borough Surveyor's Estimate, £2,100.

WOLVEY.—Erection of police house, for Warwick C.C. :—
*S. Thompson £750

WOOD GREEN.—Repairs to cottages, Walton's-road, for Middlesex C.C. :—
B. T. Burnell £637 8 0
E. & A. Jenkins 373 19 3
H. H. Wilson 353 0 0
‡C. Yardley 337 18 6

WOOLSTON.—Erection of police house, for Warwick C.C. :—
*Corfield & Burton £730

WORKSOP.—Erection of last section of school for 384, at Hoggonfields, for Notts. E.C. :—
*Richmond & Sons, Retford £7,546

WYKEN GRANGE.—Erection of school for 580 children, for Warwick C.C. :—
*J. G. Gray—Building £14,488

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